RA
997
.Q25
1974

A QUALITY EVALUATION SYSTEM FOR LONG TERM CARE

Final Report on Contract HSM 110-72-400
Submitted to the
Bureau of Health Services Research and Evaluation
Health Resources Administration

CMS Library
C2-07-13
7500 Security Blvd.
Baltimore, MD 21244

RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER

and

THE MEDICUS SYSTEMS CORPORATION

Chicago, Illinois

July, 1974

CLEARINGHOUSE

PREFACE

The work documented in this volume was done under the joint aegis of the Rush-Presbyterian-St. Luke's Medical Center and the Medicus Systems Corporation by a group of more than 30 project staff and consultants. These individuals, their project responsibilities, and institutional ties, are listed immediately following this preface. Authorship of this report is the responsibility of R. K. Dieter Huassmann, Ph.D., Robert J. Richard, Janet Feldman, R.N., Mark Hundert, and Lucille Davis, R.N., Ph.D.

The project was initiated and supported by the National Center for Health Services Research and Development (now the Bureau for Health Services Research and Evaluation) under Contract HSM 110-72-400. It began with an interest in ways of measuring quality of care in the course of surveys of nursing homes. This specific interest reflects a more general concern among long-term care professionals with the quality of life and care provided to the nation's institutionalized elderly population. These concerns, a general one with quality and a specific one with yardsticks for measuring it, have resulted in a survey system of some breadth and complexity and in a correspondingly bulky report.

Our first debt, although, in an important sense to be made explicit later, not our largest, is owed to the staff of the Bureau of Health Services Research and specifically to project officers Julius Pellegrino and Jean Bainter. Bureau consultants Pierre Salmon, M.D., Edyth H. Schoenrich, M.D., Mary E. Shaughnessy, R.N., and Virginia Stone, R.N., Ph.D., contributed useful comments on several draft reports. Sara K. Archer, D. Ed., R.N., and Sylvia Sherwood, Ph.D., served in a similar capacity as consultants to the project staff. We are also indebted to Carol Larson, R.N., of the Office of the Regional Director, DHEW Region V, and Ruth Logsdon, R.N., of the Bureau of Quality Assurance, for their reviews of our survey protocol.

Donald B. St. John, Administrator of the Long-Term Care Section, Illinois Department of Public Health, has been consistently helpful throughout this development effort. Mr. St. John is now project director for a follow-on study exploring the use of the survey methods generated in this project in a regulatory setting.

The several long-term care provider associations in Illinois helped obtain and maintain the participation of the 20 nursing homes in which we collected data and tested our instruments. We are indebted to Neil L. Gaynes of the Illinois Association of Homes for the Aging, Ross A. Reardon of the Illinois Nursing Home Association, Ronald B. Reinecke of the County Nursing Homes Association of Illinois, and Hillel Y. Yampol of the Illinois Association of Health Care Facilities, for their support.

A number of staff within our own organizations--Medicus, Rush, and the School of Social Service Administration at the University of Chicago--provided advice and guidance at various times during the project. These include James R. Brya, Ph.D., Ronald L. Gue, Ph.D., Sue T. Hegyvary, R.N., Ph.D., Regina Kulys, A.C.S.W., John F. Newman, Ph.D., and Tim K. Zinn.

The Johnston R. Bowman Health Park, the long-term care component of the Medical Center, played a special role as the organizational "home" of the project. Several members of the Bowman basic planning team were directly involved as staff and consultants. Four others, David P. Buchmueller, James Gorman, David Levin, and Rhoda S. Pomerantz, M.D., lent their expertise and advice more informally.

Two other groups of people are always mentioned in the prefaces of research reports but never really receive enough of the credit. The secretarial burdens of the work were carried by Beverly Baker, Bernice Bresadola, Gloria Maxwell, Dianne Santora, and Mary Williams.

Our largest debt, however, is owed to the residents, staff and administrators of twenty nameless Illinois nursing homes who answered our seemingly endless questions.

Richard C. Jelinek, Ph.D.
Principal Investigator

PROJECT STAFF

Richard C. Jelinek, Ph.D., Principal Investigator
President, Medicus Systems Corporation

Mark H. Lepper, M.D., Co-principal Investigator (7/72 - 7/73)
Formerly, Rush-Presbyterian-St. Luke's Medical Center, now, Illinois Director of Comprehensive Health Planning

R. K. Dieter Haussmann, PH.D., Project Director
Director, Research and Development, Medicus Systems Corporation

Robert J. Richard, Project Manager
Formerly, Rush-Presbyterian-St. Luke's Medical Center, now, Medicus Systems Corporation

Janet Feldman, R.N., Research Nurse and Field Coordinator
Director of Research and Education, Johnston R. Bowman Health Park

Mark Hundert, Senior Analyst
Medicus Systems Corporation

Lucille Davis, R.N., Ph.D., Research Nurse
Associate Professor and Assistant Dean, College of Nursing and Allied Health Science, Rush University

Grace De Santis, Research Analyst (7/72 to 6/73)
Graduate Student, Department of Sociology, University of Chicago

Robert Cripe, Programmer (7/72 - 6/73)
Medicus Systems Corporation

Anil Kunchur, Programmer (9/73 - 12/73)
Medicus Systems Corporation

John Durham, Research Assistant (7/72 - 8/73)
Graduate Student, Department of Urban Studies, University of Illinois

Elizabeth Kutza, Research Assistant (9/73 - 1/74)
Graduate Student, School of Social Service Administrator, University of Chicago

Bette Naysmith, Research Assistant
Manager-Coordinator, Rush Pain Center, Rush-Presbyterian-St. Luke's Medical Center

Sheldon S. Tobin, Ph.D., Consulting Gerontologist
Associate Professor, School of Social Service Administration, University of Chicago.

Jerome Hammerman, Consulting Gerontologist (7/72 - 10/73)
Formerly Assistant Professor, School of Social Service Administration, University of Chicago

David I. Cheifetz, Ph.D., Consulting Psychologist (7/72 - 6/73)
Professor and Chairman, Department of Psychology and Sciences of Society, College of Medicine, Rush University

Denton C. Buchanan, Ph.D., Consulting Psychologist
Formerly Assistant Professor, Department of Psychology and Sciences of Society, College of Medicine, Rush University, now Assistant Professor, Department of Psychiatry, Vanderbilt University Medical Center

David C. Garron, Ph.D., Consulting Psychologist (7/72 - 6/73)
Professor, Department of Psychology and Sciences of Society, College of Medicine, Rush University.

Frank Leavitt, Ph.D., Consulting Psychologist (7/72 - 6/73)
Associate Professor, Department of Psychology and Sciences of Society, College of Medicine, Rush University.

Robert Ling, Ph.D., Consulting Statistician
Associate Professor, Graduate School of Business, University of Chicago

Darrell Slover, Consulting Gerontologist
Assistant Professor, School of Social Work, Syracuse University

Jean Schwartz, Survey Research Consultant
Field Supervisor, National Opinion Research Center

Field Staff:

Carol Lee Cummens, R.N.
Ruth A. Cox, R.N.
Louise Cruz
Diana P. Hackbarth, R.N.
Lorraine E. Hewett
Doug Soo Kim, A.C.S.W.
Dorothy D. Palfi, R.N.
Lois Raedeke, R.N.
Miceal Rooney
Joanne Shenk, R.N.
Donna L. Sosin
Paula M. Vrba, R.N.

TABLE OF CONTENTS

		Page
PREFACE		i
PROJECT STAFF		iv
LIST OF EXHIBITS AND FIGURES		ix
EXECUTIVE SUMMARY		x
Organization of this Report		xii
Summary of Narrative		xiv
Summary of Findings		xx
I. NARRATIVE AND ANALYSIS		I-1
A. System Description		
1. BACKGROUND AND OBJECTIVES		I-3
a. Regulation and Certification of Long-Term Care	I-4	
b. System Objectives	I-9	
2. THE QUALITY CONSTRUCT		I-15
a. Elements of the Construct	I-15	
b. Facility Quality Criteria	I-23	
c. Resident Need Criteria	I-28	
d. Matching Score Definitions	I-30	
3. SURVEY PROCEDURES AND SCORING		I-35
a. General Procedures	I-36	
b. Surveyor Training	I-38	
c. Facility Orientation	I-48	
d. Scoring and Report Generation	I-50	
e. Guide to Use of System Specifications	I-56	
B. System Development		
4. SURVEY OF PREVIOUS WORK		I-59
a. Introduction	I-59	
b. Facility Evaluation	I-62	
c. Patient Assessment	I-74	
5. CONCEPTUAL APPROACH		I-90
a. Issues in the Measurement of Quality	I-90	
b. A Hierarchy of Quality Measures	I-99	
c. Matching	I-103	

		Page
6. INITIAL DATA BASE DEVELOPMENT		I-111
a. Instrument Selection	I-111	
b. Facility Selection and Orientation	I-111	
c. Data Collection and Debriefing	I-120	
7. DATA REDUCTION, ANALYSIS AND SYSTEM DESIGN		I-129
a. Scale Construction	I-129	
b. Instrument Design	I-143	
c. Development of Summary Measures	I-149	
d. Development of Matching Construct	I-158	
C. Pilot Test		
8. PILOT TEST DATA COLLECTION		I-166
a. Sample Selection and Orientation	I-166	
b. Data Collection and Surveyor Debriefing	I-169	
c. Facility Debriefing	I-180	
9. PILOT TEST ANALYSIS		I-184
a. Item Reliability	I-184	
b. Criterion Scale Analysis	I-186	
c. Summary Measures and Matching Construct	I-191	
10. PILOT TEST SURVEY RESULTS		I-197
a. Some Possible Correlates of Quality	I-197	
b. Facility Profile Reports	I-202	
c. Selected Resident Need Profile Reports	I-228	
D. Implementation		
11. IMPLEMENTATION AND FURTHER DEVELOPMENT		I-238
a. Further System Development	I-239	
b. Review of Present Regulatory Practices	I-246	
c. Information Systems and Monitoring	I-249	
d. Recommendations	I-252	
II. DRAFT SURVEYOR'S MANUAL		II-1
CLASS SCHEDULE AND READING LIST FOR SURVEYOR TRAINING		II-3
GENERAL SURVEY PROCEDURES		II-9
FACILITY SURVEY QUESTIONNAIRES		II-11
a. Administrator's Report	II-11	
b. Surveyor's Observations	II-20	
c. Staff Interview	II-52	
d. Staff Survey	II-64	
FACILITY ITEM SPECIFICATIONS		II-69

			Page
	PATIENT REVIEW QUESTIONNAIRES		II-82
	a. Resident Interview	II-82	
	b. Medical Record Information	II-99	
	c. Staff Interview	II-105	
	PATIENT ITEM SPECIFICATIONS		II-120
III.	SCORING MANUAL		III-1
	SCORING PROCEDURES AND SPECIFICATIONS		III-3
	a. Item Scores	III-3	
	b. Criterion Scale Scores	III-5	
	c. Summary Measures	III-8	
	d. Matching Scores and Satisfaction Indices	III-12	
	e. Generation of Profile Reports	III-16	
	FACILITY CRITERION SCALE DEFINITIONS		III-24
	RESIDENT CRITERION SCALE DEFINITIONS		III-30
	COMPUTATION OF MATCHING SCORES		III-36
	APPENDICES		
A.	REVIEW OF 1972 FEDERAL CERTIFICATION STANDARDS		A-1
B.	FACILITY STAFF ORIENTATION		B-1
	a. Original Initial Data Collection Introduction	B-2	
	b. Revised Initial Data Collection Introduction	B-4	
	c. Pilot Test Orientation Memorandum	B-6	
	d. Pilot Test Introduction	B-8	
C.	ABBREVIATED ADMINISTRATOR'S REPORT FOR RESURVEY		C-1
D.	SURVEYORS COMMENTS ON PILOT TEST FACILITIES		D-1
E.	PILOT TEST FACILITY DEBRIEFING		E-1
	a. Poll of Administrators	E-2	
	b. Transmittal of Profile Reports	E-6	
F.	PILOT TEST FACILITY PROFILE REPORTS		F-1
G.	FIVE SELECTED PILOT TEST RESIDENT PROFILE REPORTS		G-1
H.	REFERENCES TO PREVIOUS PROJECT REPORTS		H-1
I.	REFERENCES		I-1

LIST OF EXHIBITS AND FIGURES

Exhibit		Page
2.1	Resident Need Profile Measures	I-18
2.2	Facility Quality Profile Measures	I-21
3.1	Procedure for Random Sample (Example)	I-47
3.2	Diagram of Scoring Routines	I-51
3.3	Layout of Facility Profile Report	I-53
3.4	Layout of Resident Profile Report	I-55
5.1	Causal Relationship Between Indicators and Attributes	I-93
5.2	Relationship Between Indicators of Different Attributes	I-97
5.3	Hypothetical Four-Level Hierarchy of Measures	I-101
5.4	Hypothetical Two-Level Hierarchy of Measures	I-102
6.1	Facility Data Base Instruments	I-112
6.2	Resident Data Base Instruments	I-113
6.3	Initial Data Base Sample Characteristics	I-118
6.4	Resident Sample Completion Rates	I-125
7.1	Facility Subobjective Descriptions	I-132
7.2	Patient Subobjective Descriptions	I-133
7.3	Calculation of Northwestern Disabilities (NUDS) Scores	I-147
7.4	Calculation of IDPH Scores	I-150
7.5	Facility Subobjective, Objective, and Index Scales	I-155
7.6	Patient Subobjective, Objective, and Index Scales	I-156
7.7	Resident Need Index	I-157
7.8	Distribution of Matching Scores	I-162
7.9	Application of a Cut-Off Point to a Matching Score	I-163
8.1	Pilot Test Sample Characteristics	I-168
8.2	Times Required to Perform Facility Survey	I-178
8.3	Times Required to Perform Patient Reviews	I-179
9.1	Structure of Facility Quality Measures and Weights	I-192
9.2	Structure of Resident Need Measures and Weights	I-194
10.1	Correlations Among Selected Facility Characteristics	I-199
10.2	Correlations Between Quality Scores and Licensure Level	I-201
11.1	Proposed Resident Major Objective	I-241

Figure		
1	Structure of Facility Quality Measures and Weights	III-10
2	Structure of Resident Need Measures and Weights	III-11
3	Detail of Scoring Routines	III-17
4	Layout of Facility Profile Report	III-19
5	Layout of Resident Profile Report	III-21

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

This document reports on the development of a quality evaluation system for long-term care facilities. This system, consisting of survey methods for data collection and a quality construct for scoring survey data, has been developed, tested and refined jointly by Rush-Presbyterian-St. Luke's Medical Center (RPSL) and the Medicus Systems Corporation under Contract HSM 110-72-400 with the Bureau of Health Services Research and Evaluation (BHSR) in the Health Resources Administration.

Organization of This Report

This report consists of three major components:

I. A general project narrative reviewing the quality system and its development, testing and potential use;

II. A draft surveyor's manual presenting the survey instruments and specifications for their use; and

III. A scoring manual outlining derivation of scale scores and profile reports from the survey results.

The organization of the two manuals is straightforward and self-explanatory. They are discussed in Chapter 3(e). A brief overview of the first component, the narrative report, is, however, in order here.

The narrative is itself organized in four parts. Part A, System Description, is for the reader who wants a general picture of the quality evaluation system, what it consists of, and the results it produces.

There are three chapters in this part covering the background and objectives of the project, the quality construct that was developed, and the survey methods on which quality scores are based. Part B, System Development, is for the reader who wants to know in technical terms how development of the quality construct proceeded. It includes a summary of previous related work, a review of the research design together with the approach to measurement and scaling underlying that design, and a narrative of the development of an initial data base, statistical analysis and system design. Part C, Pilot Tests, is for the reader who desires and overview of the actual use of the quality instruments in the course of field tests. This is presented in terms of data collection, analysis, and survey results for the twenty pilot test facilities. Part D, Implementation, is for the reader interested in the issues and remaining problems related to the use of the quality evaluation system we have developed.

Frequent reference is made throughout this report to several previous reports submitted to BHSR. These citations are documented in Appendix H. References to published literature are documented in Appendix I. For the frequent cross-references within this volume the reader is referred to the Table of Contents. Each major component is paginated separately, with Roman numeral prefixes, as indicated in the Table of Contents.

The remainder of this Executive Summary is divided into two parts. One is an overview of the narrative report. The other is a summary of the most important results and findings.

Summary of Narrative

Background and Approach

In recent thinking and discussion about regulation of long-term care providers, two trends stand out. One is the need for measurement of quality of care as distinguished from measurement of compliance with legislated standards and regulations. The second is the need for Management Information Systems to make data on quality and patient needs useful in decision-making. The purpose of this contract was to develop a process-oriented quality evaluation system for long-term care that answers the first need and can be incorporated into an ongoing monitoring system that answers the second.

Design of this evaluation system was based on four conceptual foundations. These are: (1) distinctions among outcome, structural, and process evaluation, (2) theory and tactics of multidimentional scaling and the statistical definition of attributes, (3) development of a hierarchy of quality measures at different levels of specificity, and (4) comparison of facility resources and patient needs to construct measures of the appropriateness of a given resident's placement in a given facility. The system itself has two major components. The first is a set of survey instruments and procedures for facility surveys and patient reviews. The second is a quality construct for long-term care, including:

(1) scaled measures of unidimensional attributes of facilities and residents;

(2) a hierarchically-related set of summary measures derived from the scales and providing a profile of strengths and weaknesses;

(3) a set of matching scores for individuals reflecting the degree to which a facility meets a given resident's needs, and a set of satisfaction indices for facilities reflecting the degree to which a facility meets the needs of all its residents.

Development of the survey system proceeded in four sequential steps: (1) creation of an initial data base for statistical analysis; (2) data reduction, scale construction and instrument design; (3) construction of summary measures, matching scores and

satisfaction indices; and (4) pilot testing and refinement.

Initial Data Base Development

Initial data base development began with a review of existing facility evaluation and patient review methods in long-term care and related fields. From these existing methods, instruments were selected to collect facility data on psychosocial environment, physical plant, and professional policies and practices. The instruments included portions of the long-term care facility survey of the Joint Commission on Accreditation of Hospitals (JCAH), a research evaluation instrument developed at the School of Social Service Administration, University of Chicago, and the Community Oriented Programs Environment Scales (COPES). Instruments selected to collect data on residents include the Geriatric Rating Scale (GRS), a set of standard psychological tests, the Northwestern University Disability Scales (NUDS), Activities of Daily Living (ADL) questions, as well as new materials formulated by project staff on the basis of other previous work.

Data were collected in a purposive sample of nine long-term care facilities in Illinois selected to be approximately representative in terms of type of ownership, location, size, and socio-economic characteristics of residents. All nine facilities were licensed at the skilled level of care. An attempt was made to overrepresent extremes of quality based on an initial subjective impression. Orientation of facility staff to the project emphasized their role in helping formulate the evaluation methods.

On completion of the field work, the data collectors were debriefed concerning the strengths and weaknesses of the instruments they used and concerning their subjective evaluations of each of the facilities in the sample. A summary measure of these evaluations was constructed using the

method of paired comparisons.

Initial Data Base Analysis and System Development

The quality construct was developed by statistical reduction and analysis of the initial data base. This proceeded in four main steps: (1) criterion scale construction, (2) instrument design, (3) construction of subobjective, objective and index measures, and (4) construction of matching scores and satisfaction indices. In summary, criterion scales were formed by cluster analysis of the base data and homogeniety of clusters verified by item-total analysis. Instruments were designed to incorporate the items from the initial data base used in scale construction and to capitalize on experience with survey methods gained during data collection.

Items in the initial data collection instruments were grouped into preliminary subobjectives for cluster analysis. Frequency distributions were obtained and items eliminated that did not generate significant variance. An ordinal measure of association, Somer's d, was computed among items within each preliminary subobjective and matrices of these associations were entered into a cluster analysis program based on an average distance algorithm. Clusters identified as substantively meaningful were taken as criterion measures and scales constructed from the items in them through analysis of associations between items and item-exclusive total scores. Weights were assigned to each item in each scale on the basis of these associations. These criterion scales became the basis for construction of summary measures and matching scores, and for design of new survey instruments.

Three levels of summary measures were derived from items in the facility survey and patient review instruments. Correlations among criterion scales were computed and a cluster analysis was performed to create subobjectives.

Scaled measures of subobjective characteristics were derived by item-total analysis. The process was repeated to create major objective scales and, finally, an overall index measure defined as the unweighted sum of objective scores.

Matching scores were defined by assigning to each resident need criterion a set of the facility quality criteria judged most relevant to meeting the need in question. For each resident criterion, the matching score is a ratio of a weighted sum of facility resource scores to the resident need score. A cutoff point was established as one standard deviation below the mean matching score in the population as a means of (1) identifying needs of the individual resident not met by the facility and (2) constructing a set of overall measures of the facility. These overall measures, called satisfaction indices, are percentages of patients in the facility whose matching scores meet or exceed the cutoff point. An overall satisfaction index is defined as the simple average of criterion-specific satisfaction indices.

Pilot Tests

Two pilot tests were conducted in October and November, 1973 in the nine homes on which the initial data base was collected together with 11 additional facilities selected to represent intermediate care facilities and sheltered care homes on the same structural dimensions as were used in selecting the original nine skilled nursing homes. Four surveyors were trained in use of the new survey methods during a three week orientation program. Two were public health nurses, one a former director of nursing in long-term care, and one a survey research interviewer with nursing training. The focus of training was on concepts of process evaluation, use of specific instruments, and development of a revised training syllabus.

The pilot tests were designed to generate data for the following analyses:

(1) Feasibility of survey procesures;

(2) Inter-observer reliability of individual items;

(3) Homogeniety (unidimensionality) of criterion scales;

(4) Modification of weights at each level of the hierarchy;

(5) Scaling of new items and placement in the construct.

Data for these analyses was collected in four steps. Step A, generating data on patient review item reliability, was part of the last week of survey training. These data consisted of four independent reviews of each of six patients. Step B consisted of two independent surveys of each of five facilities and generated similar data on facility reliability. In Step C the other 15 homes were surveyed. Steps B and C constituted the first complete pilot test. After a two week lapse, Step D was a straightforward second administration of the survey in all 20 facilities.

Pilot Test Data Analysis

Analysis of item scores carried out on the data from steps A and B of the field tests suggested that a substantial proportion of the items in the Surveyor's Observations and Staff Interview sections of the Facility Survey were possibly unreliable. This result emphasized the importance (1) of deriving the facility's item scores as the sum of scores recorded independently by two surveyors and (2) of thorough interviewer training and careful attention to item specifications. A much lower percentage of the Patient Review items failed rudimentary tests for reliability, mostly for reasons that could be traced to surveyor training or unavoidable variations among informants.

Pilot test data (Step C together with one-half of Step B) on the items in each criterion scale was cluster analyzed to test the unidimensionality of

the scales and to serve as the basis for revisions. Discussion of cluster analysis results and the clustering of some new, experimental scales resulted in (1) deletion of items from some scales resulting in much tighter measures, and (2) reduction of the number of facility scales from 69 to 40, including elimination for the present of the measures of consistency in staff attitudes pending further analysis, and reduction of the number of resident need criteria from 32 to 28. Item weights for the new scales were rederived on the basis of item-total associations.

On the basis of the scale analysis the subobjective and major objective groupings of the scales were revised judgmentally. Definitions of matching scores were redefined for each of the new resident need criterion scales, using the same procedure and rationale as used in the initial data base phase of the project.

Survey Results

Complete Profile Reports were assembled on all 20 facilities in the pilot test sample, based on the revised version of the quality construct. On the basis of comparison with subjective impressions of the facilities, these profiles appear to have excellent validity as documentation of the strengths and weaknesses of the facilities.

At the conclusion of the final step, a number of important questions remain. These include (1) the need for better estimates of the population values of item distribution parameters (needed in scoring of criterion scales) and of matching score distribution parameters (needed to establish cutoff points); (2) whether norms and standards for score interpretation should be established separately by level of care; (3) whether an abbreviated

survey procedure should be developed by methods of selecting stratified random samples of items for use during a given administration; (4) whether the quality construct should be modified to include a hierarchically-related set of summary measures of patient placement based on the criterion-level matching scores; and (5) whether use of the evaluation system is feasible in the context of facility regulation.

Summary of Findings

The initial aim of the project, to develop survey and scoring procedures for quality evaluation of long-term care facilities on a firm quantitative base, has been achieved. Two pilot tests in each of 20 facilities provided both subjective evidence as to the ease of administration and statistical evidence as to the validity of the new system, and resulted in substantial overall systems improvements.

In addition to this favorable general outcome, the following specific conclusions are among the more important reported in the narrative section:

(1) Measurement and evaluation in the fields of long-term care and gerontology are still somewhat primitive; most existing measurement techniques are ad hoc procedures designed for specific research purposes. The absence of detailed direct assessment of on-line nursing care in the initial data base reflects a lack of existing methods appropriate to long-term care; little use could be made for this purpose of quality of nursing care evaluations previously used in general hospitals. Especially in the area of assessment of patient needs, existing materials from the fields of psychology and mental health proved at least as helpful as those from gerontology.

(2) Field experience during the collection of the initial data base as well

as during pilot test administration indicated a need for very highly structured data collection procedures to insure reliable responses; in areas where the instruments used were highly codified and interviewer training adequate, the data was of high quality. Pilot test training and data collection experience indicates that the Patient Review procedures do not require direct involvement of a clinical psychologist in surveyor training, but that the training instructor should be oriented to the standard psychological tests included in the instrument by a clinical psychologist, and should be able to consult with one as needed during training periods.

(3) The statistical procedures used to reduce the initial data base resulted in a large set of scales that were statistically relatively homogeneous and substantively interpretable. Procedures for constructing summary measures of quality attributes based on these scales resulted in a set of measures forming profiles of each facility which, in general, made sense in terms of subjective data from the field staff. Overall rankings of the nine initial data base facilities from the summary measures agreed quite closely with overall rankings by the field coordinator and field staff. Analysis of the pilot test data resulted in important conceptual and statistical improvements in the criterion scales, and in intuitively appealing hierarchies of subjective, major objective and index measures.

(4) Patient review data showed that differences in needs among patients within facilities are larger than differences among the patient populations of the several facilities; as a result, the measures of appropriateness of patient placement (satisfaction scores) appeared to reflect their facility-level components more strongly than their patient-level components.

(5) The first round of pilot tests showed that the facility survey, as structured on the basis of the first version of the quality construct, requires approximately six hours from each surveyor to complete; as expected, however,

each Patient Review requires almost an hour to complete. As a result of this experience the survey was altered to include four rather than eight Patient Reviews as an integral component; any number of additional Patient Reviews done independently can be included in the computation of the facility-level satisfaction scores. The second round of pilot tests clearly demonstrated that with this revision the survey procedures are eminently possible and do not excessively disrupt regular facility routines; only two of eleven administrators indicated that the quality survey procedures were more disruptive than an annual licensing inspection.

(6) Profile reports on the twenty sample facilities have very high face validity; that is, they highlight strengths and weaknesses of the facilities corresponding closely to the subjective data provided by field staff. Review of the profile report data suggests that, while overall quality index scores may correspond closely to general structural characteristics (size, ownership, staff ratios), the ability of the hierarchy of measures to interpret scores at one level of specificity in terms of their component parts at the next level of specificity provides information about facility quality not available in structural data. The 14 proprietary facilities in the sample were ranked 1st, 3rd, 8th, 9th, 10th, and 12th through 20th on the overall quality index measure (average score = .47), the 4 voluntary agencies 2nd, 4th, 5th and 7th (average score = .57), and the 2 county homes 6th and 11th (average score = .52).

(7) The form of the pilot test data analysis did not allow us to validate meaningful measures of consistency of staff attitudes; the conceptual importance of this part of facility quality leads us to recommend additional analysis in this area.

(8) The existing data on the twenty test facilities appears adequate to support a preliminary substantive, rather than methodological, analysis of some

relationships among process and structural measures; we recommend that such a secondary analysis be carried out.

I. NARRATIVE AND ANALYSIS

CHAPTER ONE

BACKGROUND AND OBJECTIVES

"Abuses in Nursing Homes." "Cries for Help from Aged Answered with Brutality." "Regulations Fail to Aid 'Living Dead'." (Chicago Tribune, 1971). Only three years ago headlines such as these focused public attention on the problems of long-term care facilities and their residents--many of whom appeared to be treated as inmates rather than as clients of health care organizations. Public opinion galvanized at all levels of government a commitment to upgrade institutional care for the elderly.

At about the same time a new approach, or at least a reaffirmation of faith, crystalized among long-term care professionals. Two central elements of this approach are an active effort to rehabilitate and restore the aged or chronically ill individual, rather than passive acquiescence in his decline, and "the maximum preservation of each person's life-style within a congregate setting" (Knee, 1971). These two elements are in fact aspects of a single commitment to therapeutic rather than custodial long-term care.

This shared commitment, together with broad trends in health care planning, regulation and reimbursement, is the foundation for the effort reported here to develop new approaches to measuring quality of care in long-term care facilities.

In this introductory chapter we discuss some of the specific motivations in the field of long-term care for our work. We then outline our

objectives and some essential features of our approach to the measurement of quality. In Chapters 2 and 3 we present an overview of the resulting quality evaluation system for long-term care. A more technical statement of our assumptions and methods is deferred until Chapter 5.

Section (a): Regulation and Certification of Long-Term Care

Federal and state governments have long had statutory responsibility for setting standards for care in nursing homes and for inspecting facilities to enforce compliance. Government officials are quick to admit that they have neglected to discharge their responsibilities due to lack of sufficient personnel, meaningful standards, reliable and objective criteria to evaluate compliance with them and to measure quality of care, and information systems making it possible for them to manage their regulatory programs effectively.

Neglect, however, may be the wrong word since regulatory agencies are anything but absent from the scene in many American nursing homes (Farnsworth et al, 1972). On the other hand, as the informal survey of state licensing practices reported in Chapter II indicates, many other facilities do escape the inspector's eye. The problem is not only that inspections sometimes do not happen. In addition, the appropriateness of some standards is questionable, the validity of procedures for measuring compliance with them is often unknown, and objective criteria to evaluate quality are unavailable. These difficulties are compounded by excessive division of labor and responsibility among government agencies, overlapping jurisdictions, inefficient scheduling of personnel, and other organizational and policy problems. The resulting burden placed

on nursing home staff and administrations by government at all levels can be fairly heavy when weighed against the accuracy and usefulness of the information obtained.

Traditionally, standards for licensure and certification to participate in federal reimbursement programs are geared to structural or numerical requirements in the areas of physical plant, fire and safety, sanitation, and numbers and types of nursing and administrative staff. As a result, while much attention has been focused on the closing down of structurally unsatisfactory facilities, many new facilities that comply with existing standards render care judged by some experts to be of lower quality than the care available in some old, no longer certified, facilities. As long-term care facilities reach full compliance with existing, primarily structural, standards the need for improved assessment of quality of care becomes acute.

Although quality has rarely, if ever, been measured independently of compliance with regulatory standards, there is a tendency to define quality separately from compliance, or at least to subsume compliance under quality as one component thereof. For this reason emphasis has shifted from structural to process evaluation methods in quality of care assessment.

Structural evaluation focuses on the prerequisites of care, such as determining whether adequate physical facilities and appropriate staffing levels exist. Process evaluation emphasizes the actual performance of care and focuses primarily on the behavior of staff in relation to the patient. It is useful in the control of the care operation since it reflects adherence to operational objectives. A third approach to quality

assessment is outcome evaluation, concentrating on patient welfare--the ultimate objective of the care process (see Donabedian, 1969).

The recent emphasis on process evaluation is closely related to a renewed emphasis on therapeutic rather than custodial care. A nursing home can be clean, safe, well-staffed, and well-equipped and still be a warehouse where people are stored while they wait to die. Structural standards are not enough to insure that continued personal integrity is supported and that restorative care is given. Standards must be set for the process of care delivery as well.

This shift from custodialism and structural standards to process standards for quality of care, however, is more than a shift in focus. It also requires increasing sophistication and expertise among inspectors and the development of more accurate measurement techniques and assessment strategies. One key element in the present regulatory situation--lack of accurate measurement, especially of quality of care--is not the result of governmental "neglect" but of the state of the art in the social sciences in general and in health care research in particular.

Our research is an attempt to synthesize and build on existing knowledge in the fields of aging, long-term care, and social measurement to develop state-of-the-art methods for evaluating the quality of life and care in long-term care facilities. In addition to filling a growing need for measures of quality as well as of compliance, these evaluation methods are intended to be a component of a larger information system for long-term care. They are designed to take account of another pressing need of the health care system--ability to use information effectively in decision-making.

Since the advent of Medicare and Medicaid the rapid growth of the long-term care industry has placed an added burden on already over-taxed state licensing and inspection agencies. State agencies have traditionally performed inspections and collected information on nursing homes without having a real capability to use this information effectively in decision-making. Results of nursing home surveys and medical reviews, in the absence of an adequate information system, collect dust rather than contributing to timely and equitable licensing, patient placement, reimbursement, and planning decisions. One result is that standards for long-term care have been difficult to enforce. In fact, inability to use information systematically often makes it even harder to upgrade the facilities worth saving than to close the facilities beyond repair.

Early in 1971 the State of Illinois tackled this problem head on. Motivated by a crisis of public confidence in the quality of long-term care--purchased in large part by public dollars--the Illinois Department of Public Health (IDPH) developed an automated information system to support licensing and reimbursement decisions (St. John et al, 1973). This system has been operational for over two years. Its development was based on a need to provide the capability to store and analyze inspection findings, facility data, personnel data, and ownership data, and to handle the processing and issuing of licenses. While it clearly improves the State's efficiency in the mechanical aspects of reviewing nursing home compliance with standards, it still relies on the evaluation of structural requirements for care on which current standards are based.

The "Illinois System" is in some respects a model for the design of our evaluation methods. We began with the intention of developing methods

that could take advantage of the information systems capabilities developed in Illinois and would therefore be compatible with sophisticated solutions to the problems addressed by IDPH. As a result, the quality evaluation system is to some extent oriented toward use in Illinois, although it in no way depends for its usefulness on the IDPH information system.

More specifically, our system capitalizes on the medical review features of the "Illinois System" to go beyond them in two ways. First, we assess patient placement in a potentially more sophisticated framework than that underlying choices among skilled, intermediate, and sheltered care. Second, we use patient review data to measure facilities on the dimension of their ability to satisfy the needs of their residents as well as on dimensions of quality measured independently of patient characteristics. These characteristics will be elaborated in the presentation of the system in Chapters 2 and 3.

While the information system concepts underlying this research are derived from a regulatory program, we have not attempted to relate quality of care to existing regulatory or accreditation standards. In previous long-term care research, compliance with standards as measured by regulatory data has often been used as an indicator of quality (eg, Levey et al, 1973). Regardless of the actual degree of correlation between compliance with standards and quality of care, regulatory activities can be based on a quality evaluation only if it can be shown that quality can be validly and reliably measured in a practical, economical way.

This work has been supported by the Bureau of Health Services Research and Evaluation (formerly the National Center for Health Services Research and Development) as part of the federal government's initiative

to improve care for the aged. Through Titles XVIII and XIX of the Social Security Act the federal government purchases a significant proportion of nursing home care for elderly Americans. It is appropriate that the government assure proper expenditure of these funds to purchase adequate levels and quality of care.

Section (b): System Objectives

The preceeding discussion of inspection and evaluation in long-term care has highlighted two themes. First, governments are increasingly interested in the quality of the care they purchase with public dollars. Second, it is becoming increasingly obvious that even the most valid information about quality is almost useless to agencies concerned with regulating and/or paying for care unless the means are available to process it, store it, retrieve it, and apply it to specific decision-making tasks.

In response to these two trends, we have attempted to develop measures of the quality of long-term care that can become the basis for a quality-oriented information system for evaluating and licensing facilities and for monitoring the placement of, and care given to, individual residents in them. These measures collectively constitute a "quality construct" for long-term care.

The term "quality construct" originates with the Request for Proposal for this project. It refers to an operational definition of quality of life and care in terms of measurable attributes. Our approach to the formulation of this definition, spelled out in detail in Chapter 5, has three distinctive features:

(1) The definitions of aspects or dimensions of facility quality

and resident need are the result of statistical analysis of data as well as of professional judgment.

(2) The conceptualization of how these dimensions emerge from analysis of data is based on the theory of multidimensional scaling.

(3) All measures are distribution-dependent--that is, they score facilities and residents relative to other facilities and residents, not relative to an absolute standard.

The Request for Proposal also specified the development of three sets of measures: (1) measures of facility quality, (2) measures of needs of individual residents, and (3) "a reliable method of matching each patient's needs with an appropriate environment in a facility..." (RFP HSM 110-HSRD-164(2)). Our system includes not only measures of appropriateness of placement as attributes of individuals but measures of the extent to which a!' residents' needs are met as attributes of the facility. As a result the system considers quality from two points of view: (1) the point of view of the facility attributes or dimensions identified in our research, and (2) from the point of view of satisfaction of the resident need dimensions or attributes identified.

Two additional features of our approach should also be emphasized at the outset. First, each of two sets of measures--facility quality and resident need--includes a hierarchy of measures at four levels of specificity. Measures at each level are derived from groups of measures at the next most specific level. Secondly, we have attempted to increase the objectivity and reliability of data collection procedures to the extent possible given the state of the art when we began and the nature

of the variables being measured. We have therefore utilized the highly structured data collection techniques of modern survey research wherever possible.

In concluding this introductory description several points should be emphasized. Most importantly, the quality construct and related survey methods are not primarily oriented toward determining compliance with statutes or regulations. Thus, some items of interest to regulatory personnel are left out of the questionnaires, and some concepts of similar interest are not included in the scales. For this reason an item-by-item comparison of the survey instruments with, for example, Medicare/Medicaid skilled nursing facility standards would be in some respects misleading. Similarly, one cannot grasp what the system measures by looking only at the survey items. As will be discussed in detail in Chapter 5, items are taken only as indicators of traits or attributes measured by scales.

Second, the quality construct is a means of scoring and reporting survey data designed to maximize both the amount of information gained and the ease of its interpretation. A complete report on a facility consists of (1) a Facility Profile Report including criterion scores, summary scores and satisfactions scores, and (2) a set of Resident Profile Reports, one for each resident sampled, including criterion scores, summary scores and matching scores. These measures and reports are discussed in detail in Chapter 2(a) and 3(d) respectively.

A corollary to this, but an important point in its own right, is that the patient review instruments and construct are an integral part of the facility evaluation system rather than a separate entity. They are not tools for developing patient care plans (compare, for example,

Shaughnessy et al, 1968). To the extent that the patient review component has applications outside the evaluation system, so much the better. We are especially interested in the possibility that it can be modified for use with persons not yet institutionalized in order to select the most appropriate from among available facilities and/or home care services. This modification would have to include measures of perceived needs and preferences and measures of medication and treatment needs not keyed to a medical record.

As it stands, the Patient Review component can be used to compare the adequacy of an already-institutionalized person's placement in several alternative long-term care facilities. This application could easily include selection of an appropriate nursing home for mental hospital patients being considered for transfer to a long-term care facility. It could not, however, compare placement in a nursing home with continued maintenance in a psychiatric hospital.

In addition, the Patient Review is not diagnosis-oriented but is, rather, built on the premise that the long-term care resident's levels of functioning, measured on a number of dimensions, are what shapes his needs for care. An analogous point with reference to the evaluation system as a whole is that it assesses "life and care" in long-term care facilities--not just medical and physical nursing care.

Finally, these remarks about the role of the Patient Review mechanism in the quality evaluation system should help make clear the relationship between quality evaluation and peer review. Peer review renders a judgment about services delivered to an individual client by individual care-givers on the basis of examination of at least the person's

medical record. The focus is on the necessity, appropriateness, and/or quality of services rendered by specific physicians or nurses. Our Patient Review procedure, in contrast, looks at the resident's needs for care--not at the care delivered to him. The Facility Survey and Patient Reviews together describe the quality of the institution as a whole. Clearly they reflect the aggregated quality of the work done by individuals, but not their performance as individuals.

In summary, then, our objectives were to:

(1) define quality of care in the framework of a rehabilitative and restorative, rather than custodial, emphasis

(2) use process evaluation techniques to measure quality

(3) identify attributes of the care process through reduction and analysis of quantitative data

(4) develop a "quality construct" through combined data analysis and professional opinion on the basis of the measurable attributes identified

(5) measure quality attributes and individual needs on relative rather than absolute scales

(6) assess individuals in terms of specific needs and in terms of the extent to which these needs are met

(7) evaluate facilities in terms of quality attributes and in terms of the extent to which residents' needs are met by these attributes

(8) develop a means of interpreting unidimensional measures through a hierarchical set of derived summary measures

(9) maximize objectivity through increasingly structured data collection procedures, and

(10) build into the system compatibility with automated information systems for long-term care regulation.

The resulting quality evaluation system for long-term care has two major components. The first is, in the language of the Request for Proposal and the contract under which the work was performed, a "quality construct" for long-term care. The second is a set of procedures for using this construct to evaluate specific long-term care facilities. These procedures include questionnaires, methods of administration, and instructions for scoring. Chapter 2 describes the quality construct, Chapter 3 the survey procedures.

CHAPTER TWO

THE QUALITY CONSTRUCT

In Chapter I we documented the practical need for new methods for qualitative evaluation of health care facilities and services, and the current shift of emphasis from structural evaluation to process, and where possible,outcome evaluation. We then sketched briefly several distinctive features of the new methods developed in this research. We postponed developing the rationale for these features until Chapter 5 on our technical approach. We will introduce the quality construct in this chapter, and survey procedures for using this construct to evaluate long-term facilities in Chapter 3.

Section (a): Elements of the Construct

The heart of the quality evaluation system is two sets of scaled measures, called "criteria." One set of 40 scales measures the quality of life and care provided by the facility. The other set of 28 scales measures the individual resident's needs for care.

Scores on these criterion scales are computed from data collected during facility surveys and patient reviews using highly structured survey instruments. Criterion scores are weighted sums of scores on individual questionnaire items, adjusted to vary between 0 and 1.00 with a mean of .50.*

---

* In the more technical discussions of these scores in Part B of this report, it will be shown that scale scores can only reach the extremes of 0 and 1.00 under special circumstances.

High scores on facility scales indicate high quality; high scores on resident scales indicate high need --that is, low self-care ability. Since item scores are normalized using sample estimates of population means and variances, the criterion scores measure facility quality relative to other facilities, not against an absolute standard. Similarly, resident scales measure needs relative to the needs of other long-term care residents. The content of all 68 (40 facility and 28 resident) scales is described separately in Sections (b) and (c) of this chapter. The actual item content and item weights for each scale are documented in detail in the specifications in the Scoring Manual.

The criterion scales are in turn the basis for computation of four other sets of measures. Two sets are measures of facility characteristics, two of resident characteristics. The resident measures are (1) a set of hierarchically-related summary measures of need for care, called "subobjective", "major objective", and "need index" scales, and (2) a set of measures, called "matching scores", of the extent to which the individual resident's needs are met by his/her facility. The facility measures are (1) a set of hierarchically-related summary measures of quality, called "subobjective", "major objective", and "quality index" scales, and (2) a set of "satisfaction scores", one corresponding to each resident-level matching score, constructed as aggregations across a sample of the residents in the facility. The following discussion describes the two sets of resident-level measures before the facility-level measures, reversing the order of presentation of other material in this report, in order to clarify the dependence of satisfaction scores on matching scores.

The Resident Need Construct

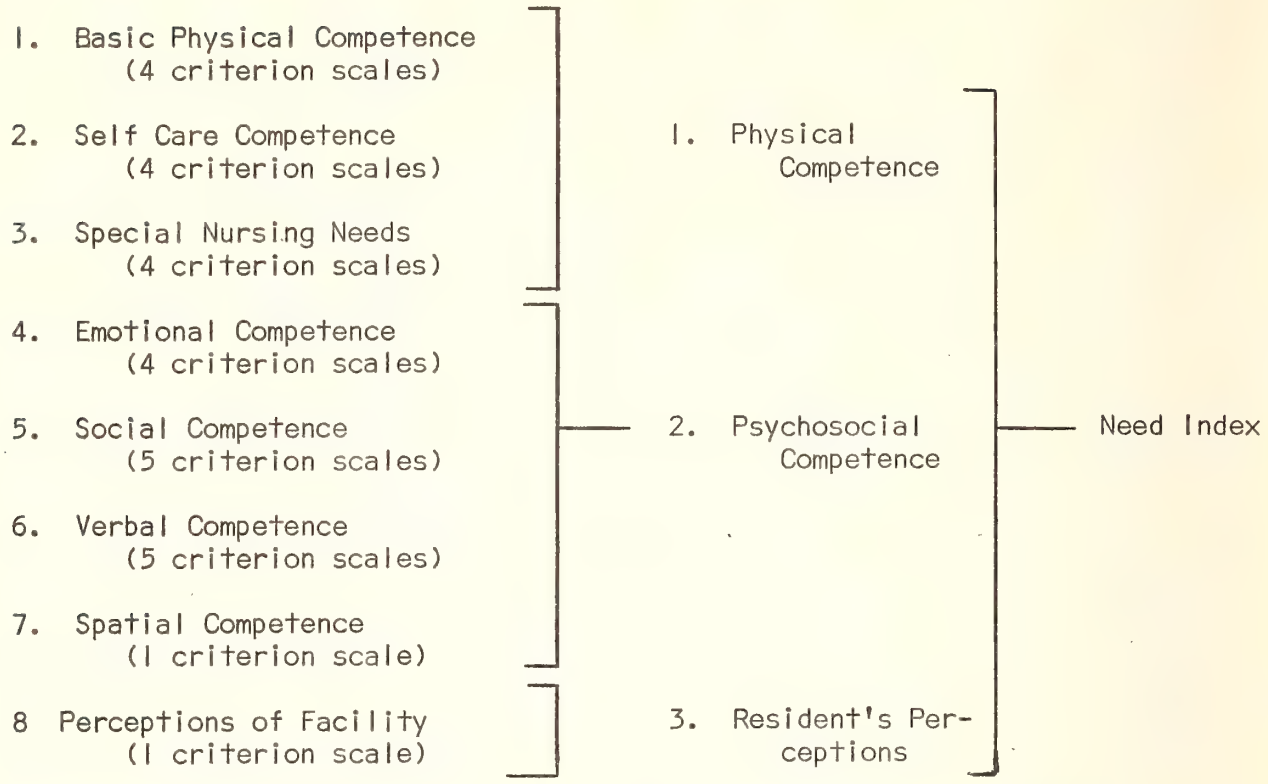
The various summary measures derived from the 28 resident scales comprise a profile of the resident's needs for care. The purpose of this profile is to highlight the individual's particular areas of need relative to other long-term care residents, as well as his/her areas of relative competence. Each of the eight subobjective scales is a weighted sum of a group of criteria; the three major objectives are weighted sums of a group of subobjectives, and the need index is the unweighted sum of the major objectives. All scores are adjusted, like the criterion scores, to vary between 0 and 1.00 with a mean of .50. High scores reflect high need.

These summary measures are shown in Exhibit 2.1, along with their arrangement in a resident profile. The overall need index score gives equal weight to physical needs, psychosocial needs, and resident's perceptions. Note that the scale measuring satisfaction with the facility (in the Perceptions of Facility subobjective) scores dissatisfaction as high need. The quality construct subdivides physical needs into three areas (subobjectives): Basic Physical Competence (hearing, vision, mobility, eating), Self Care Competence (grooming, dressing, hygiene, and other measures), and Special Nursing Care (various treatments). Psychosocial competencies are classified as emotional, social, verbal and spatial. Definitions of the criterion scales in each subobjective are given in Section (c). Weights assigned to criteria in computing subobjective scores, and weights assigned to subobjectives in computing major objective scores, are documented in the Scoring Manual.

The remainder of the resident-level construct is the set of matching scores. With one exception, one such score exists for each resident criterion scale. (The exception is criterion no. 20, based on the Geriatric Rat-

EXHIBIT 2.1

RESIDENT NEED PROFILE MEASURES


1. Basic Physical Competence (4 criterion scales)
2. Self Care Competence (4 criterion scales)
3. Special Nursing Needs (4 criterion scales)
4. Emotional Competence (4 criterion scales)
5. Social Competence (5 criterion scales)
6. Verbal Competence (5 criterion scales)
7. Spatial Competence (1 criterion scale)
8 Perceptions of Facility (1 criterion scale)
1. Physical Competence
2. Psychosocial Competence
3. Resident's Perceptions
Need Index

ing Scale [Plutchik et al, 1970].) Each matching score is a ratio measure relating the resident's score on a specific need criterion to the facility's scores on a subset of the quality criteria most relevant to meeting that specific need of the resident. This measure is constructed to vary between 0 and an upper bound of infinity in the extreme case where the resident scores near 0 on the need criterion and the need criterion and the facility scores near 1.00 on all the relevant quality criteria. The highest observed scores are typically between 2.00 and 5.00. It should be emphasized that a score greater than 1.00 (or any other number) does not indicate the resident is "over-matched" or "overplaced".

Facility criteria for matching were selected by project staff judgmentally rather than statistically, with a heavy emphasis on scales relating to rehabilitation and restorative care. They were selected as measures of attributes judged most important for meeting the needs of residents with high need scores. The actual facility criteria selected for construction of matching scores are discussed in Section (d).

In addition to this set of 27 "high need" matching scores, the construct includes a set of 15 "low need" matching scores corresponding to the 15 criteria in the second major objective, Psychosocial Competence. These are based on those facility criteria judged most important for meeting the needs of residents with low need (high psychosocial competence). Each low need matching scores is a ratio measure relating 1.00 minus the need criterion score to this second subset of the facility criteria.

All 42 (27 high need, 15 low need) matching scores can be compared to distribution-dependent cut-off points. Our cut-off points, derived from sample estimates of the means and variances of matching scores for the population of Illinois long-term care residents, are one standard deviation

below the mean. Thus, if a matching score is normally distributed in the population, approximately 17 per cent (one-sixth) of all residents will fall below the cut-off point. Skewed matching score distributions produce different percentages falling below the cut-off point. The selection of this cut-off point definition is subjective; it should be obvious that for some research or evaluation purposes other definitions might be more appropriate.

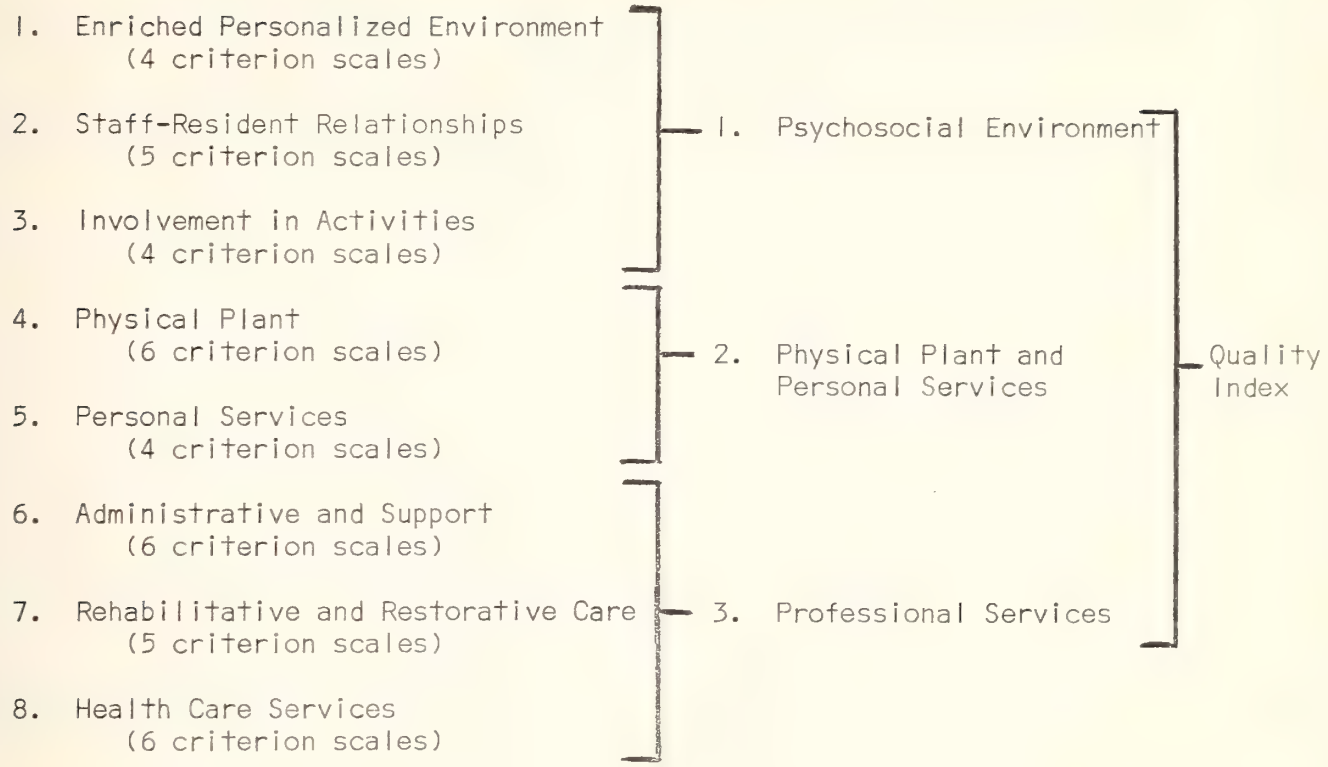
Taken together, the matching scores and cut-off points provide a means of assessing the relative degree to which an individual's needs are met by the facility in which he has been placed. Comparison of matching scores with their cut-off points identifies those particular needs least satisfied by the resident's present facility. The number of needs not met at the level established by the cut-off points is a rough indicator of the overall match between resident and facility. The construct is amenable to expansion to allow "matching" of a resident or potential resident with any number of facilities; for this purpose criterion no. 14, Satisfaction with Facility, would not be considered. A particular facility could be said to be a suitable match if no matching scores fall below their respective cut-off points.

The Facility Construct

The set of measures summarizing the facility quality scores is directly parallel in structure to the resident need profile introduced above. This facility quality profile is shown in Exhibit 2.2. Again, the quality index gives equal weight to quality of psychosocial environment, physical plant and personal services, and professional services. The psychosocial environment objective includes three subobjectives: Enriched Personalized Environment, Staff-Resident Relationships, and Involvement in Activities. These three subobjectives contain a total of 13 criterion scales. The construct distin-

EXHIBIT 2.2

FACILITY QUALITY PROFILE MEASURES


1. Enriched Personalized Environment (4 criterion scales)
2. Staff-Resident Relationships (5 criterion scales)
3. Involvement in Activities (4 criterion scales)
4. Physical Plant (6 criterion scales)
5. Personal Services (4 criterion scales)
6. Administrative and Support (6 criterion scales)
7. Rehabilitative and Restorative Care (5 criterion scales)
8. Health Care Services (6 criterion scales)
1. Psychosocial Environment
2. Physical Plant and Personal Services
3. Professional Services
Quality Index

guishes personal services to residents from professional health care services and includes the former with physical plant conditions in the second major objective. Professional Services includes general Health Care Services, Rehabilitative and Restorative Care, and Administrative and Support Services. The weights assigned to crieria within subobjectives, and to subobjectives within major objectives, are documented in the detailed specifications in the Scoring Manual. The criterion scales are described generally in Section (b) following, while specific documentation of their item content is also in the Scoring Manual.

The final element in the quality construct is the set of 42 facility-level satisfaction scores. One satisfaction score corresponds to each resident-level matching score, and is simply the percentage of residents in a random sample from the facility's census whose matching scores equal or exceed the cut-off point. This percentage is a rough indicator of the extent to which the facility meets its residents needs on that particular dimension. The satisfaction scores computed from pilot test data and presented in Chapter 10 are based on random samples of 12 residents in 15 of the test facilities and on samples of 20 residents in the remaining 5 facilities.

To summarize the preceeding discussion, the quality construct consists of:

(1) 40 facility quality criterion scales,

(2) a set of summary facility profile measures grouping the 40 criteria into 8 subobjectives, 3 major objectives and an overall quality index,

(3) 28 resident need criterion scales,

(4) a set of summary resident need profile measures grouping the 28 criteria in 8 subobjectives, 3 major objectives

and an overall need index,

(5) a set of 42 resident-level matching scores, 27 relating to high needs on all criteria and 15 relating to low needs on psychosocial criteria, and

(6) a set of 42 facility-level satisfaction scores, one corresponding to each matching score and based on data on a random sample of the facility's residents.

Section (b): Facility Quality Criteria

The 40 criterion scales developed to evaluate facility quality are grouped into 3 major objectives representing primary components of the institutional care process. These are (1) Psychosocial Environment, (2) Physical Plant and Personal Services, and (3) Professional Services. The following verbal descriptions of the content of each scale are grouped by these major objectives and by subobjective within each of them.

Psychosocial Environment

Psychosocial aspects of the facility's environment are considered from 3 points of view represented by 3 subobjectives. Enriched Personalized Environment refers to elements of both the physical plant and care program that enhance personalization and individuality, and includes 4 criterion scales. Various aspects of the interpersonal milieu (Staff-Resident Relationships) are measured by 5 scales. The final 4 scales in this objective, grouped under Involvement in Activities, assess the availability and utilization of resources for structured and unstructured group and individual activities, as well as general patterns of interaction.

Enriched Personalized Environment.--Criterion no. 2, View from Windows,

takes the interest value of the views from areas of the facility as an indicator of perceptual stimulation offered by the environment. Criterion no. 4, Personalization of Environment, measures personalization in terms of such indicators as variations in individual rooms and in clothing, the manner in which food is served, availability of places to read, to buy personal items, and to be alone. Criterion no. 5, Building Complexity, assigns low scores to large, complex buildings with many floors and high scores to buildings that are easy for residents to find their way around in. Criterion no. 9, Orderliness/Personal and Private Spaces, juxtaposes neatness and absence of clutter in public spaces with variation and personalization of private spaces; orderliness of the common areas combined with personalization of sleeping rooms generates a high quality score.

Staff-Resident Relationships.--Criterion no. 29, Staff Tolerance/Somatic, takes willingness of the staff to tolerate inability to feed oneself, insomnia, incontinence, and somatic complaints as an indicator of supportive relationships. Criterion no. 30, Staff Tolerance/Behavior, similarly measures staff attitudes toward behavioral problems such as confusion, wandering, depression, and withdrawal. Criterion no. 31, Staff Recognition, measures the willingness of staff to respond to and reward residents' accomplishments. Criterion no. 32, Residents' Openness with Staff, measures the staff's perception of whether residents are willing to speak openly and share feelings with them. Criterion no. 34, Group Spirit, measures the surveyors' and staff's perception of willingness to initiate activities, participation in shared activities, and feeling of esprit.

Involvement in Activities.--Criterion no. 25, Activity Level, combines indicators of the presence of facilities and equipment for activities with observation of the degree to which residents are engaged in activities. Criter-

ion no. 27, Informal Activities, reflects the existence of resident organizations such as committees and clubs. Criterion no. 28, Resident Interaction, measures the extent of conversations, arguments, joint hobby or craft activity, and overall level of interaction among residents.

Physical Plant and Personal Services

This objective combines more or less structural measures of the physical plant, as these impinge on the resident's experience in the facility, with personal care services (as distinguished from professional--medical, nursing, social--services). The 6 criteria in the Physical Plant subobjective relate to such attributes as cleanliness, odors, illumination, and visual appeal. The 4 criteria in the Personal Services subobjective measure food service, personal care and grooming, and nursing staffing levels.

Physical Plant.--Criterion no. 1 measures the adequacy of the illumination in various areas of the facility. Criterion no. 3, Condition of Plant, includes items reflecting condition of the building exterior, interior and furnishings. Criterion no. 6, Unpleasant Odors, takes account both of odors in various areas and sanitation practices affecting odors. Criterion no. 7, Cleanliness, includes the floors, walls, and furnishings in each of several areas. Criterion no. 8, Maintenance Practices, includes items on janitorial and laundry practices. Criterion no. 24, General Attractiveness, includes size and attractiveness of the grounds, overall pleasantness of the interior, and residents' grooming and clothing.

Personal Services.--Criterion no. 11, Attractiveness of Food Service, includes currency of menus, nutritional value of menus, and food preparation methods. Criterion no. 12, Cleanliness of Food Service, includes cleanliness of dining areas and furnishings and attractiveness of the food served. Cri-

terion no. 14, Residents' Grooming and Personal Care, reflects surveyors' ratings of the residents' grooming, hygiene and clothing. Criterion no. 15, Nursing Service Staffing Levels, scores numbers of full time R.N.s, L.P.N.s and aides as percentages of number of licensed beds.

Professional Services

The 6 criteria grouped under Administrative and Support Services all indicate the availability of services that directly or indirectly support patient care. These encompass specific disciplines such as pharmacy and dental services as well as inservice programs, administrative policies, and patient records. Another 5 scales evaluate rehabilitative and restorative aspects of care on dimensions such as use of outside resources, direct evidence of restorative nursing practices, and indirect evidence of the rehabilitation program in patient records. The Health Care Services subobjective includes 6 criteria reflecting the kind and amount of direct health care. These services include professional staffing, policies and standards, medication practices, and the like.

Administrative and Support.--Criterion no. 10, Dietary Personnel, reflects the number, food handling practices, and inservice experience of dietary personnel. Criterion no. 19, Pharmacy Facilities, measures the availability of pharmacy facilities and personnel. Criterion no. 35, Inservice/Use of Professional Resources, indicates medical, dental, dietary, rehabilitation and occupational therapy contributions to the inservice program. Criterion no. 6, Inservice/For All Staff, reflects the scope of the inservice program in terms of the various occupational categories for which there are either orientation or continuing educational programs or both. Criterion 39, Administrative Resources, includes items on transfer agreements, job descriptions,

procedure manuals and posted disaster plans. Criterion 40, Patient Records, evaluates a sample of charts in terms of physician's and nurse's entries and also reflects medical records staffing.

Rehabilitative and Restorative Care.--Criterion no. 17, Restorative Nursing Practice, finds evidence of restorative care in nurses' notes, participation of rehabilitation personnel in inservice, observed evidence of encouragement of patients to care for themselves and to participate in activities, and evidence that nursing personnel use their training in transfer, body positioning, bowel and bladder, and other restorative techniques. Criterion no. 22, Documentation of Restorative Care, reflects detail of documentation in the nursing care plan, physician's notes, physical therapist's notes, and other records. Criterion no. 23, Use of Programmatic Resources, reflects access to clergy, utilization of crafts and activities programs, and other means, to maintain maximum levels of functioning. Criterion no. 33, Encouragement of Resident Activity, includes items reflecting the staff's role in fostering patient activities of various kinds, both structured and informal. Criterion no. 38, Community Resources, includes items on welfare agencies, volunteers, clergy, and patient participation in activities outside the home.

Health Care Services.--Criterion no. 13, Medical and Professional Supporting Staff, includes the level of involvement of activity therapists and speech therapists and the presence of a medical staff and agreements for laboratory and podiatry services. Criterion no. 16, Nursing Supervision, examines the credentials of those in charge of various shifts and of individual floors or units. Criterion no. 18, Nursing Policies, measures general supervision, documentation of and adherence to procedures, and assignment of only nursing duties to nursing personnel. Criterion no. 20, Medications/Practices,

takes account of who has access to medications, who administers them, and adherence to standards for verbal orders, etc. Criterion no. 21, Medications/Safety, reflects the security of storage, labelling, separation of internal and external medications, and other indicators of safe medication practices. Criterion no. 37, Professionalism of Staff, reflects various aspects of staff organization and credentials from the medical staff down to the job assignments of on-line personnel.

Section (c): Resident Need Criteria

Of the 28 scales developed to assess the needs of individual residents, 12 relate to physical needs and 15 to psychosocial needs. The remaining scale is a measure of subjective satisfaction with the facility. The following verbal descriptions group the 28 criteria into 8 subobjectives and in turn group these into the three major objectives, Physical Competence, Psychosocial Competence and Resident's Perceptions.

Physical Competence

Basic Physical Competence.--The first subobjective includes 4 criteria measuring hearing (criterion no. 8), vision (criterion no. 9), mobility (criterion no. 24) and eating (criterion no. 25).

Self-Care Competence.--The second subobjective includes 4 criteria. Criterion no. 2, Self-Care/Grooming, is based on the surveyor's direct observation of the patient's neatness and cleanliness. Criterion no. 3, Changes in Physical Status, refers to whether the resident's ability to care for himself has declined since admission. Criterion no. 26, Self-Care/General, refers to ability to dress oneself and perform routine morning care. Criterion no. 20, the Geriatric Rating Scale, (Plutchik et al, 1970) is a more general measure of self-sufficiency and acceptable behavior.

Special Nursing Needs.--Criterion no. 5 measures need for treatment for decubiti, criterion no. 6 orders for catheterization, and criterion no. 7 the resident's continence. Criterion no. 27, General Nursing Care, includes a large number of other needs such as medications, dressings, oxygen, etc., based on physician's orders.

Psychosocial Competence

Emotional Competence.--Criterion no. 4, Changes in Mental Status, reflects whether the resident has improved or deteriorated since admission. Criterion no. 12, Night-Time Behavior, measures insomnia and wandering at night. Criterion no. 13, Antisocial Behavior, includes verbal and physical abuse of others. Criterion no. 15, Need for Psychiatric Care, is based on the presence of a functional psychiatric diagnosis, and on need for supervision by staff.

Social Competence.--Five areas of psychosocial functioning that influence social interaction are assessed, some using standard psychological tests. These are verbal communication, expressive language, receptive language, situational memory, and social judgment. Criterion no. 1, Communication Skills, is based on direct observation of the resident's ability to express himself verbally. Criterion no. 10, Memory Span, is a test of ability to remember a set of familiar objects (Wells and Ruesch, 1945). Criterion no. 11, Social Interaction, is based on several observed behaviors such as joining in games and conversations and having friends. Criterion no. 16, Situational Memory, is based on orientation to place and time (from Wechsler, 1945). Criterion no. 19, Social Judgment, is based on the picture absurdities test, which has been shown to reflect indirectly judgment in social situations (Terman and Merrill, 1960).

Verbal Competence.--Criterion no. 17, Verbal Competence, is a standard sentence completion test used as a measure of expressive language (Schuell, 1965). Criterion no. 21, Object Identification, is the first part of the memory span for objects test, used as a measure of receptive language. Criteria no. 22 and 23, Digit Span/Forward and Digit Span/Backward, are from the standard digit span test. Criterion no. 28 is an estimate of verbal intelligence derived originally by regressing scores on three other criteria on the Peabody Picture Vocabulary Test (Dunn, 1971).

Spatial Competence.--Criterion no. 18, Spatial Orientation, is the right-left discrimination test used to measure the resident's orientation in physical space (Benton, 1959). This is a variable affecting skill in dressing, finding one's way around, and social interaction.

Resident's Perceptions

At present the resident need construct includes one scale measuring the resident's satisfaction with the facility in which he presently resides. This is Criterion no. 14, Satisfaction with Facility, and includes items on activities, medical and nursing care, and overall satisfaction.

Section (d): Matching Score Definitions

For each resident need criterion, facility criteria were selected which satisfy this resident need. Each of these facility criteria is weighted as having primary, secondary or tertiary importance.

Some facility criteria were significant for meeting a majority of resident's physical and psycho-social needs. Therefore, some of the same facility scales were matched with many of the resident criteria (for example, the

inservice, rehabilitation and staffing level scales). Other facility criteria were selected on the basis of their unique relationship to a specific resident need criterion. All matching scores can be considered in relation to primary as well as secondary and tertiary prevention. That is, a number of facility attributes are important in preventing additional complications associated with present physical or psychosocial problems as well as providing rehabilitative or restorative care for chronic conditions. A brief verbal description of each matching score is presented here. Specific documentation of the facility criteria used and their weights is given in the Scoring Manual.

Physical Competence

Basic Physical Competence.--Facility criteria important for meeting the the need measured by criterion no. 8, Hearing, encompass psychosocial milieu characteristics which decrease behaviors associated with hearing deficits such as withdrawal and paranoid symptoms. Significant milieu attributes are staff attitudes (especially toward somatic complaints), resources which increase self-esteem (personalization), interaction (community, activity programs) and staff inservice programs.

Facility criteria matched with resident criterion no. 9, Vision, includes social environmental attributes that facilitate and motivate the resident with impaired vision to maneuver in the environment. Such criteria include: adequate illumination, external views, orderliness of private and personal spaces, structured activities, staff inservice programs and community resources.

Facility criteria for meeting needs associated with loss of mobility, criterion no. 24, consist of physical and psychosocial environmental qualities that facilitate and encourage residents with mobility problems to

ambulate. These criteria are: building complexity, neatness, personalization, restorative care, staff tolerance for somatic complaints, program resources and activities.

Facility criteria related to criterion no. 25, Eating, include environmental elements that are important in meeting needs related to biological and psychosocial aspects of nutritional intake. Criteria include the following: staff attitudes toward somatic complaints, general and dietary staff levels (which can be important in the quality of attention given to this need for residents who may require such special attention), restorative care and inservice programs.

Self-Care Competence.--Facility criteria for both criterion no. 2 Self Care/Grooming, and criterion no. 26, Self Care/General, are focused on environmental characteristics that provide physical and psychosocial resources (which reflect attitudes and policies) for residents that have special needs in the above area(s) and therefore may require special assistance. Environmental attributes include personal services for personal care and grooming, staffing levels and staff inservice programs.

Facility criteria considered in relation to criterion no. 3, Change in Physical Status, include those which are important for improving negative physical changes and preventing such future changes. These criteria include medical and nursing staffs, restorative and rehabilitation resources and care, and other resources for patient programs and activities.

Special Nursing Needs.--All four of the criteria in the third subobjective, Special Nursing Needs, are discussed together since they represent needs which require similar environmental resources (medical and support staffs, inservice, administrative service). Nursing care, supervision and policies is the essential environmental component in meeting the above needs

since nursing staff are primarily responsible for the continuity of care in relation to the physical and rehabilitative aspects of care.

Psychosocial Competence

All 15 criteria in the second major objective, Psychosocial Competence, are considered together for purposes of constructing these matching scores. The first set is based on facility criteria most relevant to meeting the needs of psychosocially impaired individuals, that is individuals with high need scores. These reflect components of the milieu that preserve and strengthen the resident's physical and psychosocial integrity. Specific physical attributes include illumination and building complexity; examples of psychosocial characteristics are personalization, program resources and activities. Administrative resources and policies (staffing levels and staff attitudes) are also included because they influence the way the above environmental attributes and concepts are operationalized.

The second set of matching scores is based on facility characteristics affecting the facility's ability to provide an environment conducive to satisfying other residents with "low need" (unimpaired psychosocial functioning). It is assumed that all persons (including those with only physical disabilities) have psychosocial needs in an institutional setting and make demands on environmental resources. It would be less appropriate, in contrast, to match facility characteristics with "low need" in relation to physical problems, since only the physically impaired require specialized environments. Residents with "low" psychosocial needs, however, require such things as more structured activity programs, and staff with special kinds of expertise. Facility criteria measuring activities, staff-resident relationships, perceptual stimulation, and community resources, are used to construct these "low need" matching scores.

Residents Perceptions

The resident's overall satisfaction with the home was matched with selected physical and psychosocial facility attributes. Most of them relate to general environmental qualities which our society identifies with comfort, care and humane treatment. Examples include external and internal physical building conditions (cleanliness, attractiveness), food (which is frequently used to differentiate "institutional" from "home" living), activities (informal--which can be more personalized) and staff (especially number of professional staff).

CHAPTER THREE

SURVEY PROCEDURES AND SCORING

We have, in the previous chapter, described in a summary fashion the various components of the quality construct. In this chapter we will bring these components together with data collection and scoring procedures to complete our picture of the evaluation system as a whole. We will discuss the data collection procedures in general, surveyor training, facility orientation, and the process of scoring the survey data.

The survey instruments incorporate those items that survived the statistical reduction of the initial data base. It should be noted, however, that not all the items of information collected on facilities and residents are included in one or more scales. Certain material is included for teaching purposes. This is based on the idea that measurement of an environment has a reactive effect on that environment (see, for example, Webb et al, 1966). Specifically, facility administrators will respond to what they perceive surveyors to be looking for and measuring by changing their program planning. For this reason, organizations doing quality evaluations should feel some responsibility for the potential impact on the facility of their data collection procedures and, to the extent feasible, structure their procedures accordingly. Certain other material is included with a view toward further development of the quality construct based on future data analysis (see Chapter II).

Section (a): General Procedures

A quality evaluation survey of any given facility consists of administration of a Facility Survey and review of a random sample of four residents. It should be emphasized that the four Patient Reviews are an integral part of the Facility Survey. Any number of additional Patient Reviews can be done independently of the Facility Survey procedure and included in the scoring to insure the statistical reliability of the sample. Additional residents for review should be selected randomly. To complete the assessment, two surveyors spend one day each in the facility. They require an estimated 6 man-hours of staff time (divided among as many as 13 staff members) and an estimated 2 man-hours of residents' time (from 4 residents).

The Facility Survey consists of four sections:

I. Administrators Report: a form to be filled out by a responsible official of the facility

II. Surveyor's Observations: a form to be filled out by each surveyor; the surveyor's responses to each item are summed to produce the facility's item score

III. Staff interview: each surveyor interviews one staff member directly involved in patient care; again, the responses are summed for each item

IV. Staff Survey: a short questionnaire filled out by a random sample of four or more on-line staff; item scores for the facility are the means of the scores of indivi-

dual respondents.*

Each Patient Review consists of three sections:

I. Resident Interview: an interview including psychological testing, attitude questions and surveyor's observations

II. Medical Record Information: a form filled out by the surveyor from the resident's records

III. Staff Interview: an interview conducted with an on-line staff member familiar with the resident's condition, needs and behavior

Each surveyor is responsible for review of two residents and for completion of Sections II and III of the Facility Survey. The two surveyors share responsibility for assisting staff with Sections I and IV of the Facility Survey as necessary. The surveyors should be registered nurses with at least two weeks of training in the evaluation methods. Surveyor training is described in the following section of this chapter.

Selection of the patients to be reviewed is random. Residents on the census who for any reason are not available for review at some time during the survey (for example, on a day leave) are replaced by drawing an additional name. Residents who, as a matter of conscious choice, refuse when asked to participate are also to be replaced. This does not, however, refer

---

* In addition to these scores reflecting the central tendency of staff attitudes in the facility, a second set of items can be generated measuring the extent to which the four staff agree with each other in responding to the item. This measure is the mean of the absolute values of the differences between the responses of individual staff members; it is analogous to a standard deviation, but more appropriate to our purpose. Our data analysis included efforts to derive scales from this second set of scores to measure consistency of staff attitudes toward various aspects of the facility's milieu and program, but such scales are not included in the present version of the quality construct. See Chapter 9 (b).

to residents found to be too confused to give their consent; these are tested as far as is possible.

Ideally, staff respondents for Sections III and IV of the Facility Survey should be selected at random from those on duty the day of the survey. Our procedure is as follows. The administrator is asked ahead of time to have available a staff roster (as well as a patient census list). At the time they select the four residents for review, the surveyors sample names from the staff roster until they have six who are (1) in nursing service, not counting the director, and (2) on duty that day. Permission is obtained from the supervisors of the first two to participate in the half-hour interview, and for the remaining four to take 10 to 15 minutes to fill out a form. Should permission be denied a specific individual because of workload considerations, a replacement name is sampled. Facility administrators are briefed in advance on the procedure, so that it does not become time-consuming.

Staff are selected for interviews about the residents being reviewed (Section III of the Patient Review) on the basis of direct knowledge of the resident. Since the instrument measures resident rather than staff or general facility characteristics, no consideration need be given to the "representativeness" of these staff. What is important is their knowledge of the patient.

Section (b): Surveyor Training

A two-week surveyor training program has been developed to provide surveyors with information and practice they need to assure consistency in judgmental decisions involved in data collection and to maximize the reliability and validity of the data collected. The program of instruction

has two major themes: (1) orientation to long-term care issues, and (2) process-oriented survey procedures and techniques. These themes provide a base upon which surveyor trainees can develop the observational, interviewing and testing skills necessary for high quality survey work.

The specific objectives of the program are:

(1) To provide for the surveyors a brief orientation to the aging process and how social health care should differ for older individuals.

(2) To identify for the surveyors the differences between long-term care and acute care.

(3) To provide time for the surveyors for a reorientation to distributive nursing concepts and public health concepts of food handling, sanitation, and cleanliness.

(4) To identify for the surveyors factors of the physical environment that influence life and care beyond adequate hotel services, personal care, and medical care.

(5) To develop and/or improve observational skills of the surveyors through the use of structured observations.

(6) To develop and/or improve survey interviewing skills using structured questionnaires.

(7) To develop the skills of the surveyors to administer the tests for cognitive functioning with a minimum of distortion.

(8) To supervise data collection by the surveyors during simulated and practice data collection experience.

A syllabus for a two week course designed around these purposes and objectives is included in the Draft Surveyor's Manual as the final portion of the Manual. The discussion below is based on this syllabus.

This course should be taught by someone who, minimally, (1) has extensive long-term care experience, (2) has taken the same course previously, and (3) has sufficient experience performing the actual surveys to be completely comfortable with the methods. If needed in particular instances, this person should draw on expertise in survey research interviewing and in psychological testing on a consulting basis.

Surveyor Qualifications and Recruitment

Surveyors should be licensed Registered Nurses preferably with baccalaureate degrees. Individuals with experience in Public Health nursing and/or long-term care should be preferred. Warmth, tact, the ability to solve problems and to think on one's feet, and the maturity to tolerate well the experience of working in facilities ranging from splendid to wretched, are personal qualities equally as important as education and experience. In addition, some previous research and/or interviewing experience is helpful but not necessary.

Our experience in the course of development of the survey evaluation system has been that extremely qualified nurses, some with preparation at the graduate level, can be recruited on a temporary (six weeks to two months) basis without difficulty. One excellent source of surveyors should be students in graduate-level nursing programs. Our experience using classified ads in a large metropolitan area has been very positive. Our temporary field staff were paid slightly less than the going rate for permanent hospital nursing staff with the same background.

Orientation to Long-Term Care Issues

By the use of assigned readings, daily discussion and question sessions, and immediate applicability through using the survey instruments the

trainee can be oriented to issues in long-term care.

The project staff's definition of long-term care used for this training program is that it is more than being confined to a specific geographic place for an extensive duration of time, but that it is "continuing professional involvement over time" (Tobin, 1973a). It must follow that life and care in a facility subscribing to the first definition is different than life and care in one that proposes to follow the second. As the protocols were designed with the latter concept in mind the items to be answered focused on elements of long-term care that support the second meaning.

Items in the scheduled and structured observations and interviews all lead toward a discernment of whether or not a long-term care facility makes an attempt to consciously manage "...daily life through creating, supporting, developing, and restoring the appropriate life-style of the resident in the direction of personal and social autonomy" (American Hospital Association, 1971:5).

Long-term care has come to be identified with caring for the infirm aged. Related to this is the widespread idea that only "custodial care" should be provided for aged individuals. They are old and, therefore, nothing more can or need be done until death removes them from the world. However, presently there is much evidence that suitable programs, schedules, and rehabilitation techniques can restore and/or maintain at an optimal level the physical and psychological functions of an older impaired person. Evidence of such attempts in the long-term care facility's programming and daily life are what is evaluated by the protocols. At issue, also, is the awareness on the part of the agency staff of how the aging process uniquely changes the social-health care needs of each of the individuals residing in the facility. It is around these issues and related concepts that the discussions with the surveyor trainees should be oriented

to provide a commonality of approach to the task of data collection.

Instruction in Survey Procedures

Surveyor's Observations.--The protocols developed for this project are best taught through actual use in a real setting. This presents some problems for the agency used as a training site, the surveyor-trainees, and for the instructor.

An agency administrator who agrees to allow his agency to act as an area for surveyor training probably feels secure as to what the trainees will observe there. This is a self-image that is invaluable to the instructor for it assures a minimum amount of apprehension on the part of the administration. It does not, however, assure the cooperation of the rest of the staff. They often feel that the trainees are only one more time-consuming interaction which may turn out to have unpleasant results unless they, the staff, are very careful. Also residents can respond in the same cautious, anxious way and for a group of trainees unsure of their skills, this can lead to a poor learning experience.

This problem is best resolved through using an agency where the personnel have a trust relationship with the instructor and/or some member of the project staff and where the agency staff are familiar with research and survey projects. Such long-term care facilities do exist, but if it is not possible to work in such an atmosphere, then the instructor must be prepared to formulate a brief but comprehensive orientation program and constantly be available to "trouble shoot" as minor problems arise. In one agency where several projects had trained field staff, we discovered that while the trainees were "using the front stairs" to tour and work on a practice session survey, the residents and staff were "using the back stairs" into the

administrator's office to validate the trainees' credentials. Quick cooperative action on the part of the administrator and the instructor prevented unnecessary concern on the part of the residents and staff in that facility.

Another problem is the need for the surveyor trainees to be made aware on a conscious level how they holistically respond and then adapt to their perceptions of the environment.

Other useful techniques for teaching the facility survey are careful item-by-item discussion of possible ambiguities and coding problems, relevant readings, class discussion, and supervised practice sessions. Discussion of the results of practice data collection is especially important. After a careful analysis of the trainees' backgrounds, the instructor can select the appropriate mix of these techniques. In addition, he or she should be more or less continuously available to the trainees during their practice work.

Survey Interviewing.--The task of teaching the techniques of interviewing is best done through (1) careful orientation to the survey protocols, (2) extensive role playing, (3) item-by-item question and discussion sessions, and (4) supervised practice.

In addition, the surveyors must learn the use of precoded, structured interview questions, non-leading probes, and how to follow rather complex "skip instructions" (Weinberg, 1971). Even more important is an explanation of techniques for establishing confidence and trust.

An analysis of the techniques used by the nurses in their nursing practice can indicate what needs to be emphasized. Among our own field staff one surveyor trainee had used almost exclusively non-directive interviewing techniques in her nursing practice. Her tendency early in the

training sessions to reflect with almost every question became a standing joke. This technique, useful in nursing practice, is not useful for survey interviewing and with the help of her classmates, the instructor, and a consultant she rapidly overcame the problem.

Psychological Testing.--Careful orientation and supervised practice are required to develop the surveyor trainee's ability to administer the psychological testing portion of the Patient Review. Essentially two aspects need to be stressed during the training. They are (1) the ability to provide a constant and consistant administration of the tests, and (2) the ability to do this without becoming dull and subsequently alienating the respondents. These two problems are constant throughout the training sessions and are alleviated by creative role play and practice the testing of "real" long-term care clients.

The tendency to change the administration of the tests to favor the respondents' performance seems inherent in every new member of the field staff and seems best discouraged by repeated emphasis on the need for a true patient profile, not what the surveyor thinks is true about the individual he or she is testing. Boredom experienced by the field staff with the repetition of the testing materials is also a recurring problem. We found that short, intense training sessions alternated with practice of observation and interviewing skills needed for the rest of the survey worked well to solve this dilemma.

The moment at which each member of the field staff feels secure in his/her own testing skills varies, but it is an achievable goal within the two week training period.

Objectivity During a Survey

An issue during field staff orientation is the development of an

objective stance relative to interacting with residents, facility personnel, and the facility as a whole. To the project staff's delight it was discovered during the training sessions that the field staff's nursing curricula had done an excellent job in preparing these nurses to be "change agents". This is a superb point of view for a nurse practitioner who is responsible for professional nursing interventions on behalf of his/her patient-clients. It is a disturbing point of view for a team of surveyors working as surveyors in a facility that barely meets standards for human habitation.

To overcome this "bias" the surveyors need to clearly understand that they are surveying--not carrying out a nursing intervention. This requires a great deal of help from the instructor. Statements such as the following two must be made time and time again.

> Some of the residents you will meet are severely impaired. Some will revolt you, some will elicit pity from you. It is absolutely essential that you be able to withdraw yourself emotionally from the situation. Your job is to gather data, not to improve the life situation of the resident. You are there for 30 minutes. Leave intervention to the permanent staff. Be kind and polite but not personally involved.
>
> Some of the facilities you will visit will apall you. It is necessary that you remain polite, kind and objective. Do not get enmeshed in current on-going internal political situations that may be happening around you. Do not comment on what you see, hear, smell and feel to the staff and/or the residents. Leave this feedback for the survey reports and for other project staff. Attempt to be as non-disruptive to the agency as possible and thank anyone who offers to help, and/or who assists you in any way. Again, be kind, polite, but not personally involved.

How to Draw a Random Sample

To be able to carry out the survey the trainees must learn the following procedures for obtaining a random sample of the residents and facility staff.

The procedure for drawing a random sample of the residents will require the surveyor to carry with him a random number table and to obtain a resident census list from the facility's liaison person. If a sample of residents is desired, N random numbers must be taken from the random number table. Starting at any point in the table, move down the columns or across the rows, marking down each random number that is equal to or less than the total census that day. If the census is a 2 digit number (for example, 95), then two digit random numbers should be used (e.g., the last two digits of each entry in the table), if it is a three digit number, then select from 3 digit random numbers. Continue selecting numbers from the table until N unrepeated random numbers have been obtained. Retain this group of numbers and obtain additional random numbers to be used (in the order drawn) if some of the initial sample of residents must be replaced. Using the first group of random numbers, select the initial resident sample from the census list. For convenience in matching numbers to names it is advisable to number the residents by 5's (see Exhibit 3.1). Starting with the first resident in the list, find the names of the residents matching the N initial random numbers drawn and list these names (e.g., if 51 is one of the random numbers, the 51st name in the census list would be selected). Assign resident I.D. numbers from 1 to N to these names and use these residents for the survey. If for any reason a resident must be replaced, use the additional random numbers (in the order drawn) to select additional names from the census list. These replacements should be given the I.D. number of the resident they are replacing.

The procedure for drawing a random sample of the facility staff is very similar to that used in sampling the residents. Obtain a staff roster from the liaison person and count the number of nursing staff on duty that day.

EXHIBIT 3.1

PROCEDURE FOR RANDOM SAMPLE (EXAMPLE)

Gremley, Elizabeth

Greenwalt, Otto

Grimes, Grace

Haring, Ivah

Hartley, Eva

Herold, Edith

Hollinger, Alma

Hudson, Esther

Hults, Harriet

Irving, Grace

Jordan, Carrie

King, Edna

King, Bertha

Kleckner, Pearl

Knauer, Hazel

If the number is less than six, increase the number of departments considered until the number of staff is greater than six. The departments added should be activities, social service, housekeeping, dietary, and maintenance, in that order. If the number of nursing staff on duty is exactly six, these six staff members will be the staff sample. If the number of staff to be considered is greater than six, a random sample of six must be selected. Select six unrepeated random numbers from the random number table, such that number of digits considered and the largest number selected correspond to the number of staff from which the sample is being drawn (e.g., if 7 is one of the six random numbers, select the 7th name on the staff roster). Use the two employees whose sequential numbers were selected first for the Staff Interview (Section III) and the other four for the survey questionnaire (Section IV).

Section (c): Facility Orientation

To minimize the stress and disruption that can occur during such surveys, the following steps should be taken prior to the arrival of the surveyors. The agency should be notified of date of survey and time of arrival of the surveyors. Section I of the Facility Survey (the Administrator's Report) should be mailed to the administrator. The facility should name as a liaison person someone who can assist the surveyors by providing a current census list, staff roster, and access to the personnel records of dietary employees. The liaison person should also be sure that the Administrator's Report is finished by the end of the day of the survey. In

addition, the entire facility staff should be oriented to the nature of the survey; a memo like one of those in Appendix B could be distributed with paychecks.

The administrator may designate himself or any other individual as liaison person. Usually the director of nursing or activities director is designated. The following guidelines should be reviewed with the liaison before the survey.

(1) The liaison person's responsibility is to meet the surveyors when they arrive, introduce them to the staff and facility and assist in the scheduling of the interviews and in the distribution of the questionnaires to randomly selected staff.

(2) It is helpful, if after the two interviewers are determined by the surveyors, the liaison person contacts each person's immediate supervisor and arranges with him/her a time when the employee will be able to spend a half hour with a surveyor. If for some reason a specific individual cannot be made available for a half hour another name will be selected at random. The liaison person should then contact this new person's supervisor.

(3) The liaison person should help to distribute the questionnaires to the four additional randomly selected employees at the beginning of the day so that they will have the entire shift to fill them out.

(4) The liaison person should be available from time to time over the day to assist the surveyors should the need arise.

(5) Communications surrounding the survey should be directed through liaison person to the surveyors and from the surveyor

to agency personnel when possible.

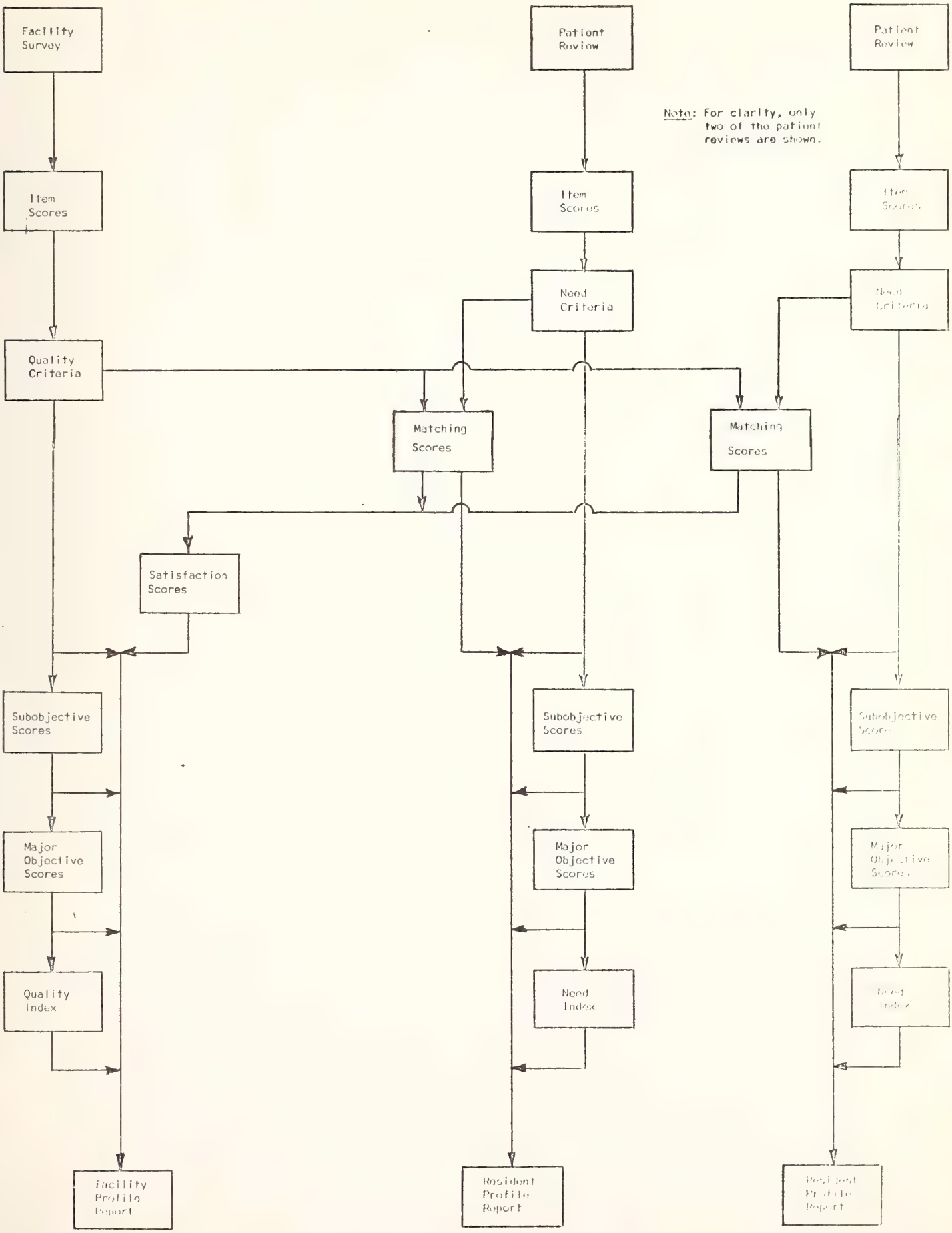
Section (d): Scoring and Report Generation

The best way to explicate the relationships among the various elements of the survey evaluation system is to trace the steps in processing the data from a survey. Exhibit 3.2 diagrams the scoring routines in a simplified way. A more detailed diagram is presented in the Scoring Manual. For the sake of clarity only two patient reviews are shown in the diagram, while in principle any number can be included. From each major component of the survey (top row of boxes) a file of item scores is constructed. Criterion scores are in turn computed from them. The facility criteria are entered into the computation of subobjective, major objective and index scores (moving down the left-hand column) all of which are presented in a Facility Profile Report (lower left-hand box). Criterion scores on each resident similarly generate summary scores on that patient. In addition, they are entered into calculation of matching scores for that resident by comparison with the facility quality criteria. Note that input into the "matching scores" box for each resident consists of his own need scores and the facility's quality scores. The set of matching scores for each patient is included in his/her profile report. The matching scores are also aggregated across all residents sampled in that facility to generate measures of the extent to which each resident need is met by the facility. These measures, the satisfaction scores, are expressed in terms of percentages of patients whose needs are met at a specified level. The facility profile report, then, includes one satisfaction score corresponding to each matching score.

Possible formats for the profile reports are shown in Exhibits 3.3 and

EXHIBIT 3.2

DIAGRAM OF SCORING ROUTINES



3.4. These are the formats used to present our pilot test data in Appendices F and G. Exhibit 3.3, which appears on two pages, is the Facility Profile Report. The first page gives the criterion scale scores and the hierarchy of summary measures, as well as identifying information about the facility. The second page gives satisfaction scores (percentages of patients whose needs are met at or above a given cut-off point). It also lists the residents reviewed in that facility and the dates of the reviews.

A rather detailed discussion of a procedure for interpreting a Facility Profile Report is included as part of Appendix E-2. This text was distributed to administrators of the 20 pilot test facilities along with profile reports for their own facilities and is aimed at the user of survey results who has little or no statistical training.

The Resident Profile Report (Exhibit 3.4) is similar in structure to the first page of the Facility Profile, except that it includes the resident's matching scores adjacent to his need scores on the resident criterion scales, rather than on a separate page. The Resident Profile also includes a report of the information used by the Illinois Departments of Public Health and Public Aid to place patients by level of care and to set Medicaid reimbursement rates. For a discussion of the rationale for collecting this data and procedures used to score it, see Chapter 7(b).

The identification data provided at the top of both facility and resident profile reports can be quite flexible. In many research applications (including our own presentation of data), for example, this information would not include names of facilities or residents for reasons of confidentiality. The survey protocols could readily be modified to include on a face sheet whatever identification data was required. Questions on the face

EXHIBIT 3.3

LAYOUT OF FACILITY PROFILE REPORT

FACILITY PROFILE REPORT I: QUALITY SCORES FACILITY ID:

DATE OF SURVEY SURVEYOR IDs: AND LOCATION. OWNERSHIP: BED SIZE/SKILLED: ; ICF: ; SHELTERED:

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment 2. View from Windows 9. Orderliness/Personal & Private Spaces 5. Building Complexity		1. Enriched Personalized Environment				
29. Staff Tolerance/Somatic 30. Staff Tolerance/Behavior 31. Staff Recognition 32. Residents' Openness with Staff 34. Group Spirit		2. Staff-Resident Relationships		1. Psychosocial Environment		
25. Activity Level 26. Structured Activities 27. Informal Activities 28. Resident Interaction		3. Involvement in Activities				
1. Illumination 3. Condition of Plant 6. Unpleasant Odors 7. Cleanliness 8. Maintenance Practices 24. General Attractiveness		4. Physical Plant		2. Physical Plant & Personal Services		
11. Food Service/Cleanliness 12. Food Service/Attractiveness 14. Residents' Grooming & Personal Care 15. Nursing Service Staffing Levels		5. Personal Services				
10. Food Service Personnel 19. Pharmacy Facilities 35. Inservice/Use of Professional Resources 36. Inservice/For all Staff 39. Administrative Resources 40. Patient Records		6. Administrative & Support		3. Professional Services		
17. Restorative Nursing Practice 22. Documentation of Restorative Care 23. Use of Programmatic Resources 33. Encouragement of Patient Activity 38. Community Resources		7. Rehabilitative & Restorative Care				
13. Medical & Professional Support Staffing 16. Nursing Supervision 18. Nursing Policies 20. Medications/Practices 21. Medications/Safety 37. Professionalism of Staff		8. Health Care Services				

EXHIBIT 3.3 (continued)

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID:

PATIENT REVIEWS INCLUDED

RESIDENT ID DATE

NOTE

Scores are percentages based on residents, or approximately a per cent sample of the census.

RESIDENT NEED CRITERION	SATISFACTION SCORES HIGH NEED	LOW NEED
8. Physical Competence/Hearing		
9. Physical Competence/Vision		
24. Physical Competence/Mobility		
25. Physical Competence/Eating		
2. Self Care/Grooming		
3. Change in Physical Status		
20. Geriatric Rating Scale (GRS)		
26. Self Care/General		
5. Special Nursing Care/Decubiti		
6. Special Nursing Care/Catheters		
7. Special Nursing Care/Bowel & Bladder		
27. General Nursing Care		
4. Change in Mental Status		
12. Night-time Behavior		
13. Anti-social Behavior		
15. Need for Psychiatric Care		
1. Communication Skills		
10. Memory Span		
11. Social Interaction		
16. Situational Memory		
19. Social Judgment		
17. Verbal Competence		
21. Object Identification		
22. Digit Span/Forward		
23. Digit Span/Backward		
28. Verbal Intelligence Estimate		
18. Spatial Orientation		
14. Satisfaction with Facility		

EXHIBIT 3.4

LAYOUT OF RESIDENT PROFILE REPORT

RESIDENT PROFILE REPORT

FACILITY ID: RESIDENT ID:

REVIEW DATE: SURVEYOR ID:

SEX: RACE: DATE OF ADMISSION:

NEED CRITERION	SCORE	MATCHING SCORES HIGH NEED	MATCHING SCORES LOW NEED
8. Physical Competence/Hearing			
9. Physical Competence/Vision			
24. Physical Competence/Mobility			
25. Physical Competence/Eating			
2. Self Care/Grooming			
3. Change in Physical Status			
20. Geriatric Rating Scale (GRS)			
26. Self Care/General			
5. Special Nursing Care/Decubiti			
6. Special Nursing Care/Catheters			
7. Special Nursing Care/Bowel & Bladder			
27. General Nursing Care			
4. Change in Mental Status			
12. Night-time Behavior			
13. Anti-social Behavior			
15. Need for Psychiatric Care			
1. Communication Skills			
10. Memory Span			
11. Social Interaction			
16. Situational Memory			
19. Social Judgment			
17. Verbal Competence			
21. Object Identification			
22. Digit Span/Forward			
23. Digit Span/Backward			
28. Verbal Intelligence Estimate			
18. Spatial Orientation			
14. Satisfaction with Facility			

SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	NEED INDEX
1. Basic Physical Competence		1. Physical Competence		
2. Self-Care Competence				
3. Special Nursing Needs				
4. Emotional Competence		2. Psychosocial Competence		
5. Social Competence				
6. Verbal Competence				
7. Spatial Competence				
8. Perceptions of Facility		3. Resident's Perceptions		

*Indicates that matching score falls below the distribution-dependent "cut-off point".

Matching scores based on Facility survey conducted

IDPH POINT COUNTS

1. Eating
2. Mobility
3. Behavior/Mental Condition
4. Physical Rehabilitation
5. Catheterization
6. Incontinence
7. Enemas, Colostomy Irrigations

TOTAL POINTS =

8. Diet
9. Medications
10. Injections
11. I.V. Fluids
12. Suctioning
13. Oxygen
14. Dressings and Appliances

sheet would not be given item numbers, nor included in calculation of scale scores.

A computer program for scoring survey results and producing profile reports is yet to be developed. Such a program should have the capability of scoring each new facility in terms of a set of preexisting norms, and also of accumulating data over time for periodic updating of the norms.

Section (e): Guide to Use of System Specifications

This chapter is intended only as an introduction to the survey evaluation system, not as a guide to its implementation. System specifications detailed enough to be useful to the potential user are given in two separate documents, a Draft Surveyor's Manual and a Scoring Manual. These are bound in this report after the text and before the appendices.

The Surveyor's Manual includes rather detailed item-by-item specifications, covering such topics as definitions of terms, procedures for making structured observations, and instructions for recording and coding responses. Although these specifications should be available to surveyors at all times, they need to learn them in some detail in the course of their training. The questionnaires themselves are included as part of the manual.

The Scoring Manual includes computational formulas as well as the formal documentation of the quality construct--the item content of the scales, organization of the scales into summary measures, matching score definitions, and so on. The construct includes 2 sets of norms necessary for scoring. These are means and standard deviations of item scores needed in the calculation of criterion scores, and the cut-off points used to "flag" low matching scores and to compute a facility's satisfaction scores. The only values of these norms available to us are those calculated from our data on a non-random sample of 20 nursing homes in Illinois, and on ran-

dom samples totaling 280 residents in these 20 homes. Although these values for the norms are included in the manual, great care would be required to apply them to other data and interpret the results. The option exists, for any potential user, of deriving these norms for scoring from his own sample data. This point is also discussed more fully in Chapter II(a) outlining recommendations for further work.

Although these system specifications are presented more or less in the form of user's manuals, we should emphasize that the system itself is now rather delicately balanced on the brink between development and implementation. We are certain that the results of well-performed survey work will be useful. Even so, areas clearly exist in which further development work might profitably be undertaken.

We make no claims, however, that anyone can perform the necessary survey work well with only this chapter on survey procedures and surveyor training to go on. We have learned, for example, that surveyor experience is an important factor in item reliability. (The training, as a result, emphasizes on-site practice in a cooperating facility as well as role-playing.) We have also learned that there is an irreducible human factor in teaching nurse-surveyors to overcome mind-sets and first impressions well enough to produce objective data. In this regard, it is especially important that surveyors learn to be conscious of and not overly influenced by the impression made by the facility as they first walk in the door. Linn (1973) documents very clearly the tendency of expert opinions and subjective assessments of nursing homes to be heavily influenced by a few characteristics--most notably odor. Learning not to respond to such characteristics in the process of scoring many other attributes requires not only experience but skillful training, including simulated data collection exper-

iences and experiential exercises often tailor-made for the individual trainee.

CHAPTER FOUR

SURVEY OF PREVIOUS WORK

Section (a): Introduction

The technical approach to be reviewed in Chapter 5 is based on the premise that new scales to measure components of quality should be derived from quantitative analysis of data collected with existing instruments. We thought it important, first, to build new work on previous accomplishments so that knowledge in the field is cumulative. Second, we realized that the components of quality identified by our statistical analysis would depend in part on the content of the items entered into that analysis. We wanted these items to reflect existing knowledge and understanding of what is important in long-term care.

Our approach also called for collection of data on both facilities and their residents. The facility-level data would generate measures of quality of life and care as a process and would include structural characteristics insofar as these are correlates, or indicators, of the process of care delivery. The resident-level data would generate measures of the needs of individuals--the demands they place on the institutional environment and the care process.

We assumed, then, that protocols appropriate for collecting both facility and resident data could be selected from a substantial number of existing instruments. As might be expected, however, instruments previously created for specific purposes and often within specific constraints did not necessarily meet our requirements. It also became ap-

parent that measurement in the nascent science of gerontology is often rather primitive. Although interest in research in the related fields of aging and long-term care is now growing rapidly, previous work in these two fields alone proved not to be an adequate foundation on which to build.

In order to find instruments and literature relevant to some of our concerns we had to turn to other fields. Long-term care is of interest, for example, to psychiatrists and psychologists because of the prevalence of long-term institutionalization of mental patients. As a result we drew (as have others) on some psychological materials. We also looked at literature on acute care in general hospitals, since many techniques for assessing both quality of nursing care and patient status have been developed in hospital settings. One obvious problem with materials from both areas is that score distributions are often unknown for geriatric or long-term care facility populations. Another is that different interview techniques and test situations may sometimes be necessary for collection of valid data on elderly respondents.

In our review of work in related fields we uncovered four broad approaches to health care evaluation. Since comparison of these orientations provides the framework for our discussion of facility evaluation methods below, we will do no more than name them here. Two are institution-centered and might be called the standards model and the social-ecological model. The first corresponds to what is generally called structural evaluation. The second attempts to look at the environment of a facility from the point of view of its impact on the individual resident and his interaction with it, and is process-oriented. Two other approaches are client-centered and might be called the medical or peer review model and the nursing or care process model. Both are forms of process rather than structural or outcome evaluation.

The original research design emphasized measurement of care as a process rather than measurement of the structural preconditions of quality. The latter is the basis for existing regulatory assessment and, to a lesser extent, for accreditation standards as well. Out of the distinction between process-oriented and structure-oriented evaluation grew a preliminary framework for classifying evaluative criteria. Process-oriented assessment was divided into psychosocial and physical-medical components. A third area seemed to require a separate, structure-oriented category. It was apparent, both from literature and from observations of staff members familiar with health care settings in general, that the existence of policies concerning patient care does not necessarily mean that they are carried out. We wanted to establish a relationship between stated policies and activities following from these policies.

This outline of types of criteria, which initially seemed to be the best approach to the task at hand, was revised and elaborated as the research progressed, eventually resulting in the final set of objectives, subobjectives, and criteria in the quality construct. Encouragingly, the three facility major objectives in the final quality construct correspond rather closely to these three preliminary categories. The concept of quality of psychosocial environment and care emerged intact. The second major objective, Physical Plant and Personal Services, corresponds to physical-medical assessment, and the remaining major objective, Professional Services, to the organizational-policy category. In the case of the third, the fact that the fit between the original and later conceptualization is not as good reflects the process orientation of the new construct and survey methods.

The various methods of patient assessment relevant to our task of

measuring individual needs are, obviously, closely related to the client-centered forms of quality evaluation--especially to the care process model--but have different objectives. Quasi-diagnostic assessment objectives include decisions regarding placement and formulation of nursing care plans. Other objectives include outcome evalution of individual treatment and of institutional programs, as well as basic research. Our own planned use of data on residents did not fit very neatly into any of these categories, although it comes closest to "decisions regarding placement." The impact of this observation will become clear in the last section of this chapter as we refer to the variety of existing assessment protocols we reviewed.

The survey of previous work that follows is organized around the distinctions briefly introduced above. It by no means exhausts the literature on measurement of either facility or resident characteristics. Rather it focuses on the materials that shaped our approach to the measurement of quality of long-term care facilities and the assessment of the needs of their residents. It also refers to a few related studies that became available after we began to collect data. Facility evaluation and patient assessment are discussed separately.

Section (b): Facility Evaluation

Since Donabedian (1966, 1969) proposed the classification of approaches to measuring quality of care as structural, process or outcome evaluations, reviews of measurement techniques have generally adopted this three-part typology. Initially formulated as a way of talking about medical care--in other words, the performance of individual physicians--it has been applied increasingly to health care more broadly defined. Long-term care, however, takes place in institutions and includes more than the performance of tasks by in-

dividual care-givers. Therefore another fundamental distinction should be made between evaluation methods that look at the institutional source of care and those that look at the individual recipient of care.

Institution-centered methods can be either structural, based on what we have called a standards model, or process evaluations, based on a social-ecological model. Client-centered methods are almost necessarily process-oriented, but have been developed in two different areas, medicine and nursing, resulting in two different kinds of emphasis. In medicine the result has been a peer review model with two distinctive features. First, review is based solely on the medical record. Second, it is conducted by other physicians. In nursing the result has been a care process model under which the delivery of care is usually observed directly. Although these observations are generally made and interpreted by other nurses, this is not a necessary feature of the model to the extent that physician review of physician performance is a defining characteristic of the peer review model.

Standards Model

The standards model is the one traditionally employed by licensing, certification and accreditation bodies to determine whether individual or organizational care-givers are equipped to provide acceptable care. The most important sets of standards for long-term care facilities have for some time been the Medicare Conditions of Participation and the Medicaid certification standards. Since our review of these standards, documented in some detail in Appendix A, the two sets have been revised and merged into a single set of standards for skilled nursing facilities and intermediate care facilities. The only other nationally-recognized set of standards of comparable scope and detail has been the accreditation survey for

long-term care facilities of the Joint Commission on Accreditation of Hospitals (1968). A less detailed set of standards was developed earlier by the American Association of Homes for the Aging (1966) for the "social components of care." This effort to base accreditation on a combination of process and purely structural characteristics reflects the shift in long-term care from custodial to therapeutic orientations as well as a preliminary effort to overcome the limitations of the standards model. JCAH drew on this work in formulating its own accreditation standards, which reflect more process components than federal certification requirements but measure them at a very general level. One critic has charged that the newly merged Medicare/Medicaid standards similarly "replace many specific standards with hard-to-enforce generalities" (Jacoby, 1974:15).

The line between structural and process evaluation is occasionally very thin. Greenwald and Linn (1971) and Linn (1973), for example, used as a measure of quality a 71-item Nursing Home Rating Scale with these 7 subscales: records, services, meals, administrative policies, personnel practices, physical plant, and safety. Five of the 7 dimensions significantly predicted a totally subjective rating made by 6 social workers (Linn, 1973). On the other hand, compliance with purely structural licensing standards has been taken as proxy indicator of quality (Levey et al, 1973).

The use of structural standards as indicators of quality of care depends on the existence of correlations between the two. In one study (Kosberg 1972; Kosberg and Tobin 1972) measures were constructed of four types of treatment resources in 214 Chicago-area facilities: nurse staffing pattern, professional staff characteristics, records and facilities, and medical and therapeutic personnel. These resources fall in the grey area between

structural and process characteristics. A factor analysis of 36 organizational variables revealed 3 dimensions, all strongly correlated with an overall "resource score" summarizing the four resource variables. These factors were (1) "organizational system" (size, ownership, number of licensure categories, association memberships), (2) "social service system" (number of private-pay patients, high rates, non-urban location, high median income of location, number of self referrals), and (3) "health service system" (number of admissions from hospitals, number referred by physicians, number supported by Medicare). The correlations with treatment resources ranged from .30 to .61. Kosberg's "resource score" is at best a proxy measure of whether resources are used to provide care but his findings do suggest the existence of some correlation between structure and quality. Another relevant study in this regard is Gottesman (1974).

Our approach to structural criteria was to attempt to use them as indicators of various aspects of quality. (The basis for this approach is spelled out in detail in Chapter 5.) We were therefore interested in those aspects of structure that directly influence or reflect philosophy, resident-staff interactions, and the delivery of care. In this light procedures, personnel policies, staffing, and medical records, for example, appeared relatively more important and compliance with building and fire codes relatively less so. We reviewed both the JCAH accreditation survey and the Medicare Conditions of Participation for possible use to collect our initial data base. We selected the JCAH instrument because of its greater emphasis on implementation of policies and procedures as compared with Medicare's greater emphasis on technical, detailed standards. A comparison of the entire initial data base with Medicare standards, however, showed that the former included items corresponding to everything in the

latter that had clear implications for a process evaluation (see Appendix A).

Social-Ecological Model

The literature on institutionalization thoroughly documents the fact that every aspect of the institutional environment influences behavior and can contribute to (or detract from) the therapeutic goals of patient care. The negative impact of a custodial milieu on psychiatric patients is well illustrated by Goffman's (1965) classic work. A whole psychotherapeutic orientation, milieu therapy, has grown up around emphasis on the positive impact of supportive interpersonal relationships and a host of other factors making up the psychiatric or long-term care patient's total environment. As is typical of theoretical developments in the social and behavioral sciences, however, development of measures of independent and dependent variables--in this case, ways to measure the relative therapeutic efficacy of patient care units--has lagged behind development of the theory.

Most research on the environmental aspects of long-term institutionalization has focused on psychiatric facilities. Among the many aspects of this work that could be cited perhaps the most influential is that of Cummings and Cummings (1963). Although institutionalized psychiatric patients have a different range of problems and needs than residents of long-term care facilities (notwithstanding some overlap), data from the field of social psychiatry serves to reinforce the importance of the psychosocial milieu and to delineate some important variables. Long-term care professionals are, in fact, beginning to emphasize the therapeutic potential of the environment and to utilize the principles of milieu therapy in restorative care of the aged and chronically ill (Kramer and Kramer, 1967; Carp, 1967; Miller, 1966). This trend is part of the larger movement away from

custodialism (for example, Leeds and Shore, 1964; Jacobs, 1966; American Hospital Association, 1971).

Recognition of the impact of environmental variables on treatment outcomes is growing in the long-term care literature. To select one example almost arbitrarily, there is evidence that age-integrated wards have a beneficial impact on elderly patients when compared with age-segregated ones (Kahana and Kahana, 1970a, 1970b).* One study documenting the effect of the overall "quality" of their environments on aged patients was conducted by Lieberman and associates (1969). They hypothesized that a number of environmental characteristics would be associated with successful adaptation of long-term geriatric patients discharged to long-term care facilities from mental hospitals. They found strong associations between milieu characteristics and outcome measures of patient status across a sample of 26 long-term care facilities. Patient decline was greatest among patients placed in dehumanizing custodial settings. Characteristics of the environments into which patients were relocated had more impact on outcome than any combination of characteristics of the patients themselves.

To our knowledge, this study by Lieberman and associates included the only previous effort to develop a detailed survey evaluation instrument from milieu therapy or social-ecological concepts. This instrument, referred to frequently in this report as the Slover Environmental Assessment (Lieberman et al, 1969) was developed at the University of Chicago by a group of researchers under the general direction of Sheldon Tobin. Its ancestry can be traced to the concept of proxemics, the "unconscious perception and use of space found in all cultures, biologically derived" (Feldman, 1973), most closely associated with E. T. Hall (1963, 1968). This concept has been applied to the aging and to changes in the person's in-

---

* Additional examples can be found in the work of Lawton and associates (for example, Lawton et al, 1970).

teraction with physical space as he grows older by Pastalan and Carson (1970) and by DeLong (1969), the latter a member of the Tobin group and Slover's collaborator. This literature has been summarized by Feldman (1973). A related discussion is Lawton (1974).

The Slover instrument became the keystone of our initial data collection protocol. It consists of 216 items, 110 based on surveyor observation and 106 on an interview with an administrator or supervisory staff person. The 216 items are grouped into 10 scales: (1) individuation, (2) warmth, (3) physical attractiveness, (4) tolerance for deviancy, (5) fostering achievement, (6) fostering affiliation, (7) cue richness, (8) recognition, (9) fostering dependency, and (10) stimulation. Two additional scales, named "global quality" and "health care adequacy", were computed to summarize these scores. Item content of the scales was established a priori--that is, the 10 dimensions were identified conceptually and items generated as indicators of each. No quantitative analysis was done to assess the homogeneity of the scales.

The Slover Environmental Assessment was used by a group at Adelphi and Hofstra Universities to measure the impact on facility environments of a staff training program (Goldman and Woog, 1973; Woog, 1973). Four additional scales were added to it and pretraining and posttraining surveys conducted of 27 facilities. It was found that the differences between total scores, summed across all 14 dimensions, were statistically significant, indicating a positive impact of the training program. There was, however, a significant change on only one of the individual dimensions, indicating that the overall change "could not be isolated in the dimensions. This is probably a function of the impreciseness of each dimension in isolation" (Woog, 1973: 24). In addition, the persuasiveness of the overall finding is

reduced by the absence of a control group.

Even in psychiatry methods and instruments to objectively measure environmental variables are not well developed. One extensive discussion of theories and instruments for assessment of the psychosocial environments of mental hospitals can be found in Moos (1974). As a consequence, the Slover instrument appeared to be the most comprehensive that the mental health and long-term literature had to offer when we began our work.

One aspect of the total psychosocial environment that has received attention from students of long-term institutions is the attitudes of staff toward clients and toward the treatment program itself. The importance of these attitudes for the success of therapeutic milieu approaches can hardly be understated. Most, but not all, of this work has been done in mental hospitals. There are few such studies in gerontology.

One scale to measure "attitudes toward old people" was developed initially by Tuckman and Lorge (1953) and analyzed for validity by Axelrod and Eisdorfer (1961) and again by Eisdorfer (1966). This test was employed by Campbell (1971) in a study showing that, while LPNs and aides are more likely than RNs to hold stereotyped views of the aged, they are also more likely to prefer working with aged patients. This instrument, however, focuses on only one attitudinal dimension--the extent to which the respondent perceives the elderly person according to a stereotype of old age rather than as an individual. An extremely general instrument--not specifically designed for long-term care personnel--was developed by Kogin (1961).

In another study Kahana and Coe (1969) used dimensions identified in an earlier study of the self-conceptions of institutionalized aged (Coe, 1965) to categorize staff descriptions of patients and to compare these with the same patients' descriptions of themselves. They found consistent

differences between aggregated self and staff-conceptions and also some differences among staff at different levels.

A recent national survey of nursing homes conducted for the National Center for Health Statistics included a staff questionnaire consisting of 20 items about the care of aging patients. Apparently these items were taken from a larger questionnaire developed originally as part of a licensing examination for nursing home administrators. The focus is very close to the "humanism-custodialism" dimension identified and measured by students of mental hospitals (Gilbert and Levinson, 1957). The items in both the nursing home Employee Attitude Scale and the Gilbert and Levinson scale are somewhat moralistic in tone and therefore easy for a bright respondent to interpret in the light of what he believes is expected of him.

A more general survey instrument to measure staff attitudes toward mental illness was developed by Cohen and Struening (1962) and five attitudinal dimensions identified. These were named authoritarianism, benevolence, mental hygiene ideology, social restrictiveness, and interpersonal etiology. Struening and Cohen (1963) found that a factorial structure consisting of these five dimensions was invariant across several samples.

Other mental health studies have focused on choice of treatment modality. Strauss and associates (1964: 53-90) developed separate scales to measure psycho-therapeutic, somato-therapeutic and socio-therapeutic orientations of physicians, psychologists, nurses, and social workers. Responding to the recent trend toward community based treatment, Baker and Schulberg (1967) developed a similar scale to measure orientation toward the community mental health approach.

All the approaches cited above focus on attitudes toward the ill person and/or theories and methods of treatment. None measure staff or client

perceptions of the institutional milieu along dimensions thought to be related to its therapeutic potential. That is, none take the social-ecological approach attempted in Slover's Environmental Assessment. Our review did, however, uncover parallel efforts to measure staff perceptions of the therapeutic milieu in mental hospitals (Moos and Houts, 1968; Moos, 1971a), and in "community-oriented programs" (Moos, 1971b, 1972). The latter, the Community-Oriented Programs Environment Scales (COPES), is a revision of the former, the Ward Atmosphere Scales (WAS), for use in both inpatient and outpatient transitional psychiatric programs. Of the two, we selected the latter as more appropriate to nursing homes. COPES measures staff and client/resident perceptions on 10 dimensions: (1) program involvement, (2) support, (3) spontaneity, (4) autonomy, (5) practical orientation, (6) personal problem orientation, (7) anger and aggression (8) order and organization, (9) program clarity, and (10) staff control (Moos, 1972). The instrument can be administered to both staff and clients to compare the perceptions of the two groups.

The development of both WAS and COPES grew out of earlier research indicating both that the same psychiatric patients react differently in different ward settings and that different patients can react differently in the same settings (Moos, 1967). Findings of this kind can only support the emphasis of the milieu therapists on deliberate manipulation of the treatment environment. In a recent book Moos (1974) synthesizes his previous work on measurement of psychiatric treatment milieus and their effects on patients.

Peer Review Model

Turning to client-centered approaches to evaluation, we will say very

little about peer review for two reasons. First, the model had very little impact on our choice of data collection strategies. Second, the peer review literature has been almost exhaustively searched and summarized recently by Decker and Bonner (1973) in relation to the development of Professional Standards Review Organizations (PSROs). One effort to implement and evaluate a utilization review program in Medicare-certified Extended Care Facilities is reported by Dressler (1971).

Care Process Model

A more important strand in the literature we reviewed was the variety of methods, developed in general hospitals, for measuring quality of nursing care. We have already referred to these as a care process model. Jelinek and associates (1974: 15-19) classify these techniques in four groups: (1) theoretical frameworks, (2) administratively-oriented, (3) behavior-oriented, and (4) patient-centered. Theoretical frameworks specify what good nursing care consists of but not how to measure it. Traditionally, the second and third approaches to evaluating quality have been the most common. Administrative approaches, for example the standards and criteria used by the Joint Commission on Accreditation of Hospitals (1971), look at structural and organizational requirements for an effective care process. Behavior-oriented approaches (e.g., Dyer, 1967; Bidwell and Froebe, 1971; Tate, n.d.) evaluate performance by watching nurses at work but fall short of measuring the quality of the care delivered. Their underlying assumption is that certain behaviors result in, or at least are correlated with, high quality care.

Previous patient-centered approaches have recently been synthesized by Jelinek and associates (1974) into a set of methods for repeated monitoring of acute inpatient nursing care. This "second generation" monitoring

system, like most of the previous instruments on which its development was based, requires extensive data collection over a substantial period of time.* The criteria used in these instruments pertain to the delivery of nursing care in acute settings and therefore do not cover much of what is important about nursing care in long-term care settings. More importantly, the data collection these instruments require is more elaborate and time consuming than anything that could possibly have been used to assemble our initial data base--much less incorporated into our final survey design. Were it not for this time constraint, criteria appropriate to long-term care might have been developed for use in a care process instrument.

A good deal of discussion consequently took place among us about whether the instruments we did adopt for the initial data collection measured sufficiently well quality of nursing care as it is actually delivered. Obviously, the delivery of nursing care is reflected in many of the psychosocial environment, personal care, and professional services criteria included in the base data instruments. But where in this data base would we find behavior-oriented or patient-centered measures of nursing care--aside from some relatively broad items based on accreditation standards?

On the assumption that many variables measured in the data collection would be highly associated with on-line nursing care, it was suggested that we obtain ratings of nursing care in each facility for each of several patient types from professional judges, scale their ratings, and correlate the results with our other data collected using existing structured tools. The results might tell us whether the instruments from which we were to structure our new evaluation tools do in fact capture quality of nursing care.

---

* Earlier instruments include, among others, Phaneuf (1972)--developed in turn from Slater (1967) and Wandelt and Ager (1970)--Carter et al (1972); McGuire (1968); National League for Nursing (1966); Commission for Administrative Services in Hospitals (1965); Hospital Systems Improvement Program (1965).

Two difficulties were apparent in this plan. The crucial one was the availability of professional staff resources to do the additional data collection. In addition, the question has to be raised whether professional judgments are more or less valid as measures of quality than the structured evaluation protocols discussed so far. In terms of the discussion of predictive validity in Chapter 5, is the professional judgment an external standard against which to validate a survey procedure, or vice-versa? There are two validation questions here: (1) would the proposed scaling of professional judgments tell us the same things as use of a survey method such as that used by Phaneuf (1972) or Jelinek and associates (1974), and (2) how would we interpret correlation between either of these measures of online nursing care and our measures of other components of quality?

These questions were rendered somewhat academic by lack of the time and resources to collect this client-centered evaluation data in addition to the data on needs of residents called for by our overall research design. In the following section we review some of the available instruments for the latter kind of patient assessment.

Section (c): Patient Assessment

Health professionals measure characteristics of their clients on an enormous range of dimensions using an enormous variety of techniques. This much need hardly be said. It may be less obvious, however, that they do so for reasons sufficiently varied almost to defy classification. Patient assessment--to use the broadest generic term we know of--serves purposes ranging from straightforward medical diagnosis on the one hand to epidemiological research and outcome evaluation studies on the other. In between lie a number of overlapping categories including problem definition, as-

signment to treatment modality, level of functioning, disability, and health status. All forms of assessment, however, fall into one of two very broad categories: (1) treatment planning, and (2) evaluation.

The diagnostic and quasi-diagnostic uses of assessment are hard to classify. They include diagnosis, the writing of problem lists, nursing care planning, and determining a most appropriate service or placement. The last item in the above list has become of special importance recently in gerontology and long-term care (Jones, 1973; Sherwood et al, 1972). All of these uses will be referred to as planning-oriented.

Evaluation-oriented assessment is part of both process and outcome studies of the quality of health care. The use of patient assessment in process evaluation was presented in the preceding section, where two ideal types--the peer review model and the care process model were briefly described. A number of studies where process evaluation-oriented instruments have been created in care settings have been cited in this discussion. Assessments done for utilization review or medical audit purposes are also examples of evaluation-oriented assessments. Generally, these assessments are in the form of a medical review rather than a patient review.

In outcome evaluation, the measurement of health status or the amount and the kind of disability are crucial components. Several researchers have reported methodologically sophisticated measures of outcome evaluation (Fanshel and Bush, 1970; Patrick et al, 1973a, 1973b; Bush et al, 1973, and Berg 1973).

As a result of the rather specific requirements imposed by our objective, the measurement of the correspondence between facility resources and patient needs, the patient assessment procedure is planning-oriented rather than

evaluation-oriented. It is, however, a planning tool only in a very particular sense. It is part of a mechanism for selecting the most adequate facility given a decision to place a person in an institutional long-term care setting. It is not a mechanism for deciding whether the person needs to be in a nursing home.

This distinction between assessment for planning purposes and assessment for evaluation purposes is an important one to bear in mind. The rise of consumerism and the emergence of federally-mandated peer review mechanisms have generated increased interest in the measurement of quality of care (Decker and Bonner, 1973). As a result patient assessment as a component of evaluation is receiving increasing attention from both medical and nursing perspectives. There is, however, a potential source of confusion. The selection of measurement instruments often depends on how the resulting data will be utilized (Richard, 1969: 9-18). The same clinician/researcher might well use one instrument for developing nursing care plans, another for a patient-centered process evaluation and a third in an outcome study. Since the adequacy of care is dependent upon the adequacy of the information of planning-oriented assessments, planning-oriented assessments are crucial to the care delivery process. In fact, evaluation of quality of care must include an assessment of the quality of patient assessment. It is quite necessary to be able to distinguish the reasons why a given patient assessment is being done.

Comprehensive assessment and evaluation of patients' needs is an important factor in preventing inappropriate placements and promoting greater patient satisfaction and potential savings for patients and the community. While studies differ somewhat in their conclusions, there is some evidence

that many patients in long-term care facilities could be supported in the community (Berg et al, 1970; Williams et al, 1973). Although the overall objective of this study was a process evaluation of care, the approach included measurement of needs as a basis for measurement of the degree to which they are met. As a result, planning-oriented forms of assessment were of major concern.

Physical Assessment

A review of general nursing care and gerontological literature revealed a scarcity of instruments that have been proven generalizable for physical-medical and psychosocial patient assessment. Unfortunately, methods for evaluation of patient assessment are primarily descriptive designs at this time. The procedures have generally included and mixed direct observation, interviews and clinical records. Problems inherent in these approaches include issues related to subjectivity, specificity, relevance and reliability.

Although patient assessment is an important component in nursing, patient assessment has not received much attention in the nursing literature. The development of a conceptual and systematic approach to nursing care, which includes patient assessment represents a new trend in nursing (Mayers, 1972; Fowkes, 1972).

Instruments in the nursing literature for objective assessment of long-term and/or geriatric patients are rare. One impressive study to evaluate the "effects of skilled nursing intervention upon institutionalized older patients" was conducted by Martha Brown (1968). Despite conceptual and methodological limitations of the study, the researchers were able to demonstrate that skilled nursing care had a significant impact on reduction of the

psychosocial apathy of elderly institutionalized patients.

Other major developments of instruments in the gerontological field are tools constructed by Shaughnessy et al (1968) and Jones (1973). Numerous assessment instruments dealing with evaluating physical impairments, disabilities and rehabilitation potential have been developed. They include the Northwestern University Disability Scale (Canter et al, 1961), The Index of Independence in Activities of Daily Living (Katz et al, 1970), Skinner & Yett (1973), and the Barthel Index, (Mahoney and Barthel, 1965).

Patients with disabilities, including geriatric patients,are affected physically as well as socially. Instruments to evaluate disabilities frequently do not include, at least not to any great extent, items to measure the behavioral aspects of actual or perceived disabilities. With the latter point in mind, the Stockton Geriatric Rating Scale (Meer and Baker, 1966) and a revised version of the same instrument by Plutchik and associates (1970) were reviewed. The Geriatric Rating Scale (GRS) was developed for the purpose of determining the ability of psychiatric geriatric patients to function both physically and socially "in an intact integrated manner" (Plutchik et al, 1970). Therefore it was deemed particularly appropriate for evaluating individual behaviorial responses to incapacitation.

Psychosocial Assessment

THe psychosocial components of patient assessment fall under two broad areas: functional status assessment and attitude measurement. In developing measures in the first area, gerontologists have not relied heavily on the prior work of clinical psychologists and other mental health professionals who made adaptations to the elderly subject where they appeared appropriate.

Research in gerontology has only recently gained momentum and thus a number of stimulating ideas are being developed. However, insufficient data have been collected to establish reliability or standardized norms. A recently published anthology of research and theory in gerontology was especially useful, Research Planning and Action for the Elderly, (edited by Donald Kent, Robert Kastenbaum, and Sylvia Sherwood, 1972). The section of this volume on measurement of various attributes of the elderly points out some of the problems of conducting research with the elderly and explores some innovative tests and techniques, such as the use of specially adapted projective tests. Nonetheless, development of measurement tools is only one component of research in any field, gerontology or long-term care included, and the ad hoc tools developed for substantive research applications were rarely sophisticated enough to be of much help to us.

One selection from this volume by M. Powell Lawton, "Assessing the Competence of Older People" (1972), maps out the levels of organization of the human system, each of which might be evaluated for a measure of competence.

In the area of psychosocial assessment of the aged, there are a variety of approaches and instruments. However, many of the available procedures are not precise and do not provide sufficient information for accurate clinical decision-making (Lawton, 1973). Also, in order to establish reliability of standardized norms, additional data is required.

In reviewing some of the instruments used to assess the functional status of elderly people, Lawton (1973) emphasizes the importance of utilizing a multi-faceted process. In his discussion, he gives examples of instruments that can be used to evaluate a wide range of psychological and social functioning such as mental status, ability to live in a community setting, and

attitudes and life satisfaction. Examples of specific instruments to evaluate the latter functions include the "Mental Status Schedule", "Scale for Instrumental Activities", and "Life Satisfaction Index." (Lawton, P. "The Functional Assessment of Elderly People ." Broxl, V. and Brown (ed.) Readings in Gerontology. St. Louis: Mosky, 1973 pp. 37-53).

Measures of the attitudes of the elderly are conspicuous in the literature largely by their absence. A number of closely related studies on the measurement of life satisfaction (Neugarten et al, 1961; Wood et al, 1969; Adams, 1969) and morale (Lawton, 1972; Morris et al, 1972; Pfeiffer, 1973) account for most of the relevant literature. Since a measure of satisfaction with services being provided by the facility were of prime concern, studies dealing with patient morale were deleted from the initial data collection.

Psychological Assessment

This review is concluded with a discussion of the psychiatric and psychological components of functional assessment, and measurement of a subject's ability to interact with his environment. Psychological status or level of need obviously has both organic and functional (in the psychiatric sense) components and, among the aged, these are especially hard to disentangle, both conceptually and in terms of measurement strategies. The literature on psychological testing includes a large number of easily administered, but very superficial measures, for example Farina et al (1957), Gurin et al (1960), Overall and Gorham (1962), Langner (1962), Linn et al, (1969), and Endicott and Spitzer (1973). Two recent analyses of scales of this type are Seiler (1973) and Schwartz et al (1973). By and large these measures focus on screening for functional disorders (neurosis, psychosis, personality dis-

orders). They differ largely in the extent to which they are symptom-oriented on the one hand or behavior oriented on the other.

One easily administered test (Plutchik et al, 1971) has recently been developed specifically for use with geriatric patients. This Geriatric Interpersonal Evaluation Scale (GIES) was constructed to assess the patient's ability to interact with his environment and his psychomotor functioning capacity before and after appropriate therapy. The test consists of 16 items dealing with cognitive, intellectual and psychomotor functions. Inferences drawn from the results of this test are therefore based on the underlying assumption that social competence is a direct function of cognitive and perceptual functioning.

Plutchik and associates offer some support for this assumption by comparing the GIES scores of patients in the top quarter of the distribution on the Geriatric Rating Scale (Plutchik et al, 1970) with those in the bottom quarter. They hypothesized that those who were clearly different in their social functioning would also differ in their average cognitive and perceptual abilities. The difference in scores between the two groups was found to be significant at the .001 level.

The results reported by Plutchik et al (1971) indicate that the test discrimination between high and low levels of cognitive functioning is highly correlated with age of respondent. Those between 60 and 70 suffered the greatest decline. Level of education may have been an influential factor accounting for higher cognitive ability; however, this was not conclusively determined. Since a number of differences between the males and females in the sample were apparent; e.g., age, education, country of birth, religion, etc., it is difficult to be certain about how these factors affect

cognitive functioning. Although a .93 reliabiltiy level was established based on split-half testing the test was not utilized in the study reported here because it had not been administered often enough to establish confidence in its validity or to determine standardized norms, and it did not evaluate areas of psychosocial functioning in the detail required for the protocol.

Because psychosocial patient assessment is an area of research and practice which has received a substantial amount of attention from psychologists, the project staff decided that the resources and experience of the Rush-Presbyterian-St. Luke's Medical Center Department of Psychology and the Sciences of Society should be utilized to determine the best method of patient assessment. Certain constraints regarding testing time and the assumed level of interviewer skill or training were imposed on the psychology consultants. A set of procedures was chosen with the understanding that (a) the administration of the set would take no more than thirty minutes, (b) the set would be administered by subprofessional field workers specially trained for the purpose, and (c) the data derived would be objective. Within these limitations, the tests in the set were chosen so that they (a) sample functions which contribute to the ability to take some responsibility for self care, and which thereby affect the nature of the care which must be offered by the facility; (b) sample a range of functions; and (c) sample these functions by use of standardized tests, so that there is a body of knowledge relevant to the functions chosen and the data derived.

Prime interest lay in sampling the functional status of nursing home inhabitants along dimensions which would have relevance to two general areas: capacity for self-care retained by the patient; and the need for particular

kinds of support in the nursing home environment which might be implied by deficits existing in the patient. Our focus, therefore, was identifying ranges of functional ability which may be matched with types and ranges of nursing home care. In short, we wished to sample functions which contribute to the ability to take some responsibility for self-care, and which thereby affect the nature of the care which should be offered by the facility. The set of procedures was selected to sample five areas of functioning. These areas are (a) receptive and expressive language, (b) recent memory, (c) social competence, (d) orientation, and (e) motor competence. Two points may be made about this set of functions. Firstly, some tests have been chosen which contribute data to more than one area of functioning; thus, the range of functions sampled is extended without the cost of additional time, although at the price of some correlation among functions. Secondly, the tests which constitute the first four areas of functioning are given to the patients, and are estimated as taking no more than thirty minutes.

Two general questions can be raised about the selected approach: (1) for these tests, do norms exist for geriatric populations; (2) for these tests, what external validation criteria are used? Opinion about these questions may be summarized as follows:

1. For some of the tests, norms do exist for populations in the age range characteristic of geriatric patients. Included among these are the Digit Span Test, and the Wechsler Memory Scale Orientation Test (Wechsler, 1945). For other tests, such as Memory Span for Objects (Wells and Ruesch, 1945) and the expressive language subtest of the Minnesota Test for Differential Diagnosis of Aphasia (Schuell, 1965), quantitative norms do not exist by age range. Instead, these are tests which have found their way, through usefulness, into

the standard practice of neuropsychologists engaged in clinical work. Their advantage is that they are susceptible to objective scoring and they differentiate patients in the functions being sampled.

The general approach to the subject of norms was somewhat different from that which might be inferred from the question about norms. We were trying to determine whether the tests selected would, in fact, differentiate or broadly categorize the population, and we did not expect that the distributions of scores would match those derived from other, normative, populations. There does not exist a battery of tests, standardized on geriatric populations, which reflects the functions we were interested in as well as we believe our battery did. Therefore, we were, in essence, gathering data which might be normative for geriatric populations in nursing homes, but this was a secondary concern. Our primary concern was to attempt to categorize our population, along dimensions which are meaningful to the project as a whole, so that patients in these categories may be considered from the standpoint of the types and levels of care provided for them by nursing homes.

2. In the same manner, we believed the question about validation by external criteria to miss the point of the program we have designed. All of our tests have been "validated against expert clinical judgment" in the sense that they are part of the armamentarium of techniques used by expert clinical psychologists to measure the functions described. For example, to "validate" a test of intelligence, or memory function, or expressive language, by seeking confirmatory impressions about these functions from clinicians who observe or otherwise interact with tested patients is a reversal of the validation process. Such impressions are themselves in need of validation,

such validation being provided by the data derived from tests of this sort. The specific function tests we used have been validated by the standard methods of test construction, validity data being included in the respective test manuals cited below.

An additional question might be raised about the relevance of the Picture Absurdities Test (Terman and Merrill, 1960) as a test of social competence. This is a test which for many years has been incorporated in a standard intelligence scale, belief about it being that it reflects ability to perceive the social context of relationships and the judgment one has about discrepancies in social and other behavioral situations. It has been used in studies at RPSL of inappropriate behavior during convalescence from surgery. These studies have been published, and suggest that poor performance on the test is associated with poor social judgment. We used it on the basis of such experience, suggesting that individuals with attenuated social competence perform poorly on the test. We do not propose it as a global measure of social competence. Such a measure would require much more testing time than the project allows. However, we were interested in determining whether patient performance on this test would relate to judgments by care personnel about the social competence of patients, and this analysis of test data would be part of our initial evaluation of test findings.

To summarize, this set of procedures was selected to sample four areas of functioning: (a) receptive and expressive language, (b) recent memory, (c) social insight, and (d) orientation. Two points may be made about this set of procedures. First, some tests were chosen which contribute data to more than one area of functioning; thus, the range of functions sampled is extended without the cost of additional time, although at the price of some

correlation among functions. Second, the procedures were chosen to meet two criteria: demonstrated validity, i.e., the degree to which they actually measure that which they purport to measure, and time constraints upon test administration imposed by the schedule of the study.

A brief discussion of each of the four instruments follows:

I. Receptive and Expressive Language

A. Receptive Language.

Peabody Picture Vocabulary Test (Dunn, 1971). This is a standard I. Q. test originally devised for use with handicapped persons such as retardates. The procedures are simple, in that they merely require the subject to indicate which of four simple pictures best represents a word spoken by the examiner. It is not necessary for the subject to explain a response, nor to speak. The test is quick because it is not necessary to give all items. Instead, a starting point consonant with the subject's educational background is selected, and testing continues until a base and a ceiling are established. Raw scores may be transformed into I. Q. scores, which bear a known relationship to Verbal I. Q.s derived by use of other standard tests. There are two forms, which use the same test booklet and test material, and are equivalent. Although the test is regarded as a Vocabulary or Verbal I. Q. test, it is included here as a narrower function, in that it samples the ability of a person to understand the objects or situations indicated by spoken words.

B. Expressive Language. Minnesota Test for Differential Diagnosis of Minnesota Test for Differential Diagnosis of Aphasia, C. II: Producing

sentences (Schuell, 1965). This test is part of a standard test for evaluating the type and severity of aphasia. The patient is given a standard word, and told to use the word in a complete sentence. There are six standard words used, one at a time. Each response produced is scored either correct or incorrect, depending on its adequacy according to simple criteria. In this set of procedures, it is reagrded as a simple test of the ability of a person to use language to frame a coherent communication about a specific object, event, or relationship.

2. Recent Memory

Wells-Ruesch Mental Examiners' Handbook, Memory Span for Objects (Wells and Ruesch, 1945). This test is a standard test used in mental status examinations. It consists of two sets of twenty common objects, one set of objects primarily identified with use by men. These objects are presented pictorially, the subject names each by pointing to it, and then is asked to name as many as can be recalled. The test has been chosen because it samples short term memory for objects of common use, such as clothing; because it presents these objects visually, very much as they appear in daily life; and because the response required is simple naming. It may be noted that the initial naming demand in this procedure may contribute data to the evaluation of Expressive Language (A.2., above).

Digit Span. This is a standard test, included in many intelligence scales and tests of mental status. The patient is asked to repeat in exact order a string of random digits after they have been pronounced at a rate of one per second by the examiner. A second task involves the

repetition of the string of digist in reverse order. The number of digits in a string ranges from two to nine, there are two chances to pass a string - length, and the test is discontinued after a failure to pass two trials of a particular length. Digit Span is usually regarded more as a test of attention span than of memory span, but it seems to be useful in the context, bears an obvious relationship to self-care ability, and uses number stimulus material rather than pictured objects.

3. Social Competence.

   Stanford - Binet Test of Intelligence, Picture Absurdities

   (Terman and Merrill, 1960). This test consists of six simple pictures of actions in a setting. In each picture, an aspect of the action is incongruous. The subject is asked to point out, either verbally or by gesture, the incongruity. Four of the pictures are graded at the seven year level, one at the ten year level, and one at the fourteen year level. Although the test is part of a standard intelligence scale, it bears marked similarity to other tests of social competence. Further, the test has proved useful in studies of patients whose behavior has been markedly inappropriate after open heart surgery.

4. Orientation.

   A. Time, Place, and Person.

      Wechsler Memory Scale, Part I (Personal and Current Information, questions 1 - 2) and Part II (Orientation)

      (Wechsler, 1945). These questions are part of a standard test of mental status. The test was originally constructed to objectify the mental status examination of patients with neurologic disorder, par-

ticularly of memory, such as Korsakov's syndrome. The questions asked involve the subject's age and date of birth; the current year, month, and day; the current location; and the name of the city. Excluded from the questions selected are those about the current President, the previous President, the Governor and the Mayor, which seem less relevant to self-care ability.

B. Spatial.

Benton Right - Left Discrimination Battery, Questions 1 - 2. (New (Benton, 1959). This set of questions is part of a larger battery devised for the purpose of studying the development and adequacy of discrimination of spatial coordinates, particularly of left and right. The set of questions abstracted from the larger battery concern only the ability to identify these coordinates on the self. The subject is asked to indicate specific parts of the body on the left and on the right. There is a considerable body of research relating this function to the ability to deal with other spatial arrays, such as floorplans, and to manage such tasks as dressing the self.

CHAPTER FIVE

CONCEPTUAL APPROACH

The purpose of this chapter is to outline the conceptual and methodological underpinnings of the development work described in Chapters 6 and 7. In Chapter I we outlined a number of interrelated objectives of our work in the context of a brief review of its substantive (long-term care) setting. Several of these objectives require an analogous review of its technical and methodological setting for their clarification. These technical questions include the use of quantitative methods to identify attributes of facilities and residents and to develop scales to measure them, the nature of our "quality construct" for long-term care, and the relationships among its component parts. In this chapter we will address such issues under three headings: (1) the measurement of abstract variables like "quality", (2) interpretation of unidimensional measures through a hierarchical set of derived summary measures, and (3) a rationale for relating facility to resident characteristics to assess facilities in terms of their ability to meet the needs of their residents.

Section (a): Issues in the Measurement of Quality

Several persons who have reviewed our work have pointed out the enormous difficulty of defining, let alone measuring, quality of care. Our discussion of previous related work in Chapter 4 reinforces this concern. While the difficulty of the task makes our results less valid, on an absolute scale, than the results of studies dealing with more tractible variables, it does not make them relatively less useful. In fact, the inherent difficulty of defining and measuring quality makes each small step toward validity and reliability of measurement more significant.

In the following discussion the reader will observe two central features

of our approach responsive to this concern. First, our understanding of validity of measurement emphasizes its relative nature. Even in physics no measurement procedure is perfectly accurate. In the behavioral and social sciences we generally make do with what yardsticks we have--often not even knowing how good or bad they are. Opportunities, such as this research, to devote ourselves exclusively to improving our yardsticks are rare.

Second, we did not start with an a priori definition of quality of care (beyond philosophical commitments to rehabilitation rather than custodial care and to the integration of physical and psychosocial components of care). Rather, we structured our approach so that a "definition" or "quality construct" would emerge from our statistical analysis and substantive discussion, along with our measures of its component parts. While this strategy may have imposed on our "definition" the limitations in scope or quality of the data with which we started, it addresses directly the concern that "no one has successfully defined quality of care." Our "definition"--presented in Chapter 2--is a product of our research and, like our scaled measures, is valid only as an approximation.

Most, if not all, variables of interest to social and behavioral scientists cannot be measured the way we measure the length of a table by using a ruler or the weight of a person by putting him on a scale. Such things as the attitudes of an individual, the degree of complexity of a bureaucratic organization, the accessibility of health care services, or the quality of nursing care in a hospital, are measured in ways that are at once more subtle and less precise.

In general, social scientists conceptualize a variable at one level--for example, "quality of care"--and then take readings on other variables at a quite different level. They might, for example, look at the number of staff, their educational backgrounds, and the percentage of their time they spend actively

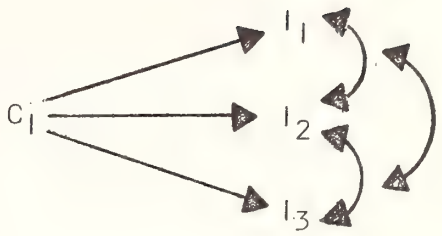
taking care of patients. Or they might watch nurses set up medications, give treatments, do charting, and the like, and then score them on their performance. Or they might talk to patients to find out if they like the nurses and are satisfied with their care. Or they might look for tell-tale signs that care is not being given, such as dirty linen on a bed, or unattended fire hazards, or unnoted medication order in the charts. All the things they might look at stand in some relation to what they mean when they conceptualize about quality of care. But no one of them is, by itself, what they mean.

This situation presents substantial difficulties to those who want to measure abstract variables like "quality" or "accessibility". Social scientists have proposed two ways out of these difficulties. Some have argued that the way out is to define concepts like quality as some combination of tangible attributes of a nursing unit and then to use the word only to refer to this set of attributes, rather than to any abstract conception. In this view, one's method of measuring quality of care on a nursing unit is determined a priori in the process of establishing a definition. In more technical language, defining a concept consists of specifying the operations used to measure it as an attribute of objects, events or states of affairs.

Against this point of view, usually called operationalism, others argue that the solution is to treat one or more measured variables as indicators of the unmeasured conceptual variable. Several sets of terminology are used to make the distinction between types of variables we have in mind. In psychometrics the underlying attribute is often called a "construct" and the measured attribute a "trait" (Cronbach and Meehl 1955). Coombs (1965) distinguishes between "genotypical" and phenotypical" variables. Others refer to concepts as "latent" variables and to indicators as "manifest" variables. We shall use the terms "concept" (or "attribute") and "indicator" fairly consistently.

EXHIBIT 5.1

CAUSAL RELATIONSHIP BETWEEN
INDICATORS AND ATTRIBUTES



Key: C_j = j^{th} concept

I_i = i^{th} indicator

→ = causal connection between variables

= correlation between 2 variables not interpreted as meaning one variable causes another

---

In general, but not always, variables are selected as indicators of concepts which are thought, for one reason or another, to be caused by the conceptual variable. For example, differences in quality of nursing care might be said to "cause" differences in the number of times per day a patient's call light stays on more than a minute, or the number of unnoted medication orders found in all the charts, or the percentage of staff time spent with patients.

A diagrammatic representation of this very simple situation is given in Exhibit 5.1. A curved arrow indicates a correlation between two variables which is not interpreted as meaning that one variable causes another. In this situation we can take readings on I_1, I_2 and I_3 and then compute the correlations among them represented by curved arrows. But we cannot measure C_1 directly so we cannot compute the correlations (straight arrows) between C_1 and I_1, between C_1 and I_2, and between C_1 and I_3. The essential task in constructing valid measures of concepts is to use the information we can obtain about relationships

among indicators to devise a procedure for estimating the concept. A variety of techniques are available for constructing these estimates. Collectively they constitute the subfield of methodology called scaling (for a standard text, see Torgersen 1958).

The validity of an indicator is usually defined as its correlation with a concept. In most situations, as suggested above, this correlation is unknowable in principle. On the other hand, it is fairly obvious that we can improve the validity of measurement of a concept by grouping indicators together into scales or indices. Each indicator has some variation in common with the concept and some variation independent of it. When indicators are grouped together the variations in each that are independent of the concept tend to cancel each other out, while the variations in each that are in common with the concept tend to reinforce each other. The previous sentence is true, of course, only when the individual indicators have some validity as measures of the concept to begin with.

In one sense the validity of a scale is as unmeasurable as that of a single indicator. Yet several forms of indirect evidence about validity exist. For example, Cronbach and Meehl (1955) define three forms of validity. First, construct validity is the correlation between an attribute and an indicator or scale. Our discussion so far has been couched in terms of this form. Second, content validity is established by showing that a set of items is a reliable, unbiased sample from the total universe of items relevant to the attribute. Informally, items are often said to have "face" validity, meaning that their manifest content is such as to inspire confidence in their relationship to the concept in question. Third, concurrent and predictive validity are established by correlational analysis of item scores.

Predictive validity is based on the assumption that one set of indicators is valid. A second set is valid insofar as it predicts scores on the first. Alternatively, a set of indicators is said to have predictive validity when the variable of interest can be measured directly and a high correlation can be shown between it and the indicators. This form of validation is especially useful, for example when one is interested in measuring future job performance of prospective employees. Tests for this purpose are developed and refined on the basis of their ability to predict future performance on the job.

Concurrent validity is established by high correlations among two or more items taken as indicators of a single attribute. This general idea appears in a number of specific forms. One of the most important is the notion of convergent and discriminant validity (Campbell and Fiske 1959). Suppose we measure a number of attributes, each of them by a number of "methods" or types of indicators, and compute correlations among all the indicators. If correlations among different methods of measuring the same attribute are high, this is evidence of convergent validity. Discriminant validity is established when correlations among different attributes as measured by similar methods are low. In a more general form, concurrent validity underlies the rationale for construction of scales, outlined above, a rationale in which different measures are "hypothesized to share in the theoretically relevant components but have different patterns of irrelevant components" (Webb et al 1966: 3).

The validity we claim for the scaled measures in our quality construct is of the concurrent rather than the predictive variety. An important issue exists in this regard. It has been suggested that our scales be validated according to their ability to predict ratings of a group of facilities by experts in the long-term care field. Special methods are available for aggregating ratings

made by several independent judges into a single measure (for example, the method of paired comparisons). The judgements of the experts are taken a priori to be valid as measures of quality, and the ability of other measures to predict them is tested by correlation.

In many situations, however, this procedure is questionable. One might argue that the experts in a given field share a specific bias because of their common exposure to certain theories and training programs and that, in fact, it is the collective judgement of the experts that needs to be validated against more objective measures. For example, the results of psychological tests--especially where these measure organic as opposed to functional variables--are often taken as external standards against which to validate the judgments of psychologists. In general we feel that the notion of predictive validity is not appropriate to the problems at hand.

At the same time, using the judgmental ratings of experts to establish concurrent validity of our scales can have real importance. With this in mind we constructed scales measuring a global dimension of quality from the subjective ratings of our data collectors. Derivation of these measures is discussed in the sections on field staff debriefing in Chapters 6 and 8 and the results interpreted in the analyses of data in Chapter 10. Our analysis, however, does not take this measure as an external standard or claim predictive validity for our scales. Two circumstances severely limit the kinds of claims we make for this subjective global evaluation.

First, the initial research design implied that the judgmental ratings would be made by the same people who collected the data from which the scales would be constructed. Thus the external standard is really not external at all. It is unclear to what extent the process of collecting the data for calculation

EXHIBIT 5.2

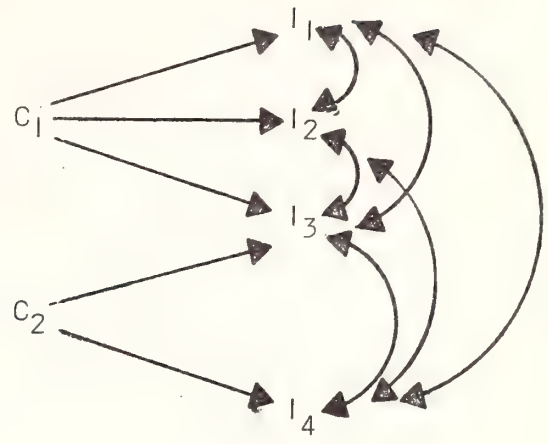
RELATIONSHIP BETWEEN INDICATORS
OF DIFFERENT ATTRIBUTES

Key: C_j = j^{th} concept

I_i = i^{th} indicator

→ = causal connection between variables

⌒ = correlation between 2 variables not interpreted as meaning one variable causes another



---

of scale scores would influence the subjective ratings made by the data collectors and thus introduce a totally spurious kind of concurrent validity.

Second, this form of validation exercise would be most useful at the level of individual scales, rather than at the level of an overall global evaluation. In other words, it would be more useful for subjective judgments to be made separately for each of a large number of dimensions and compared with scores at the most specific level of our hierarchy of measures. The process of ranking even a small sample of facilities on a large number of criteria, however, is a mammoth one for an individual judge. Even more important, in the initial data collection actual criterion definitions were a product of the data analysis and thus were not available to data collectors at the time they were in facilities to make judgments.

Having reviewed briefly some problems of validity in measurement, largely with reference to measuring one conceptual attribute at a time, we shall consider the measurement of several related concepts together. At this point a number of complications can enter the picture. One of these is illustrated in Exhibit 5.2.

(Recall that C_i represents the ith concept and I_i the ith item or indicator.) First, note that I_3 is shown to be caused by both C_1 and C_2. Second, note that correlations exist between indicators of C_1 and indicators of C_2, as well as among the indicators of a single concept. For example, I_4 is correlated with I_1 and I_2 as well as with I_3. For these reasons--and this is the problem--correlations will also exist between one concept and indicators of the other concept, for example, between C_2 and I_1. (Such correlations are not represented by arrows in the diagram.) Now, assuming we think there are two concepts, C_1 and C_2, how do we construct measures of each of them? Or, even worse, how do we know there are two concepts involved in the correlations among I_1 through I_4, and not one concept or three concepts?

In general, we look at the pattern of correlations among the indicators and try to group those that correlate both strongly among themselves and weakly with other groups. If we have selected the indicators involved with specific concepts in mind, we hope that the number of groupings corresponds to our initial basis for selecting the indicators.

Still considering Exhibit 5.2, let us return to our primary example of a concept, quality of nursing care. Is this concept really unidimensional? Most students of nursing would say no. In fact, we might conceptualize any number of variables under the rubric of quality of nursing care. The same is true of other borad concepts. We might, in principle, want to construct scaled sets of indicators for each variable. The problem is especially acute when the various concepts treated as components of a more general concept are rather highly correlated, as we would expect them to be in our example.

In our quality construct scaled measures of concepts are called "criteria". Essentially the approach taken was to group items into scales statistically and then to identify these with concepts or attributes by professional judgment.

Each concept (as measured by a scale) is in turn identified as a unidimensional evaluative criterion for assessing quality of life and care.

Implicit in this discussion is an important element of our approach. Although overall objectives of long-term care can be specified quite clearly by thought and discussion, the individual unidimensional components of excellence in meeting these objectives are much harder to spell out a priori. For this reason we did not begin to develop the quality construct by listing evaluative criteria. Rather, we used a number of existing data collection methods to assemble an initial data base representing as many aspects of the facility as possible. Analysis of this data base was structured by a judgmentally developed group of "major objectives" and "subobjectives" of care. Items in the data base were grouped into these a priori subobjectives, and a number of scales developed from each subobjective grouping. Statistical and judgmental analysis of the resulting criterion scales in turn resulted in a new structure of subobjectives and major objectives having both substantive and statistical meaning. The rationale for including in the construct scaled measures of quality at these more general levels is presented more fully in the following section.

Section (b): A Hierarchy of Quality Measures

Our approach to criteria definition and scale construction generates measures of a large number of unidimensional attributes--too many for easy interpretation of survey results obtained from the evaluation system. This makes it desirable to construct additional measures to (1) summarize and aid in the interpretation of information in the criterion scales, and (2) incorporate into the interpretation an understanding of how the basic concepts are interrelated. These considerations lead to the idea of a hierarchy of measures, generating a single overall index of quality (derived from facility criteria) and an index

of need for care (derived from resident criteria). Measures of characteristics at each level of the hierarchy are derived from measures of characteristics at the next most specific level.

Criteria are aggregations of items serving as indicators of the presence of a specific attribute. In our quality construct, criteria are in turn aggregated to measure more general characteristics called "subobjectives". Subobjectives are aggregated into measures of the "objectives" of care and these are finally combined into an "index" measure. These relationships are pictured in Exhibit 5.3. In this exhibit S_i refers to the ith subobjective and $\emptyset$ to the ith major objective. The terms "criterion", "subobjective", "objective", and "index" are in a sense arbitrary labels for measures at increasing levels of generality. The specific terms originate in an effort to delineate the "objectives" of care and to specify "criteria" for assessing whether these objectives are met.

This hierarchy is an artificial construct designed to generate measures whose meanings at each level can be made clear through analysis of their component parts at lower levels. The number of levels in the hierarchy is a joint function of the patterns of relations among indicators and of the particular data reduction strategies used to uncover these patterns. In advance of the actual definition of variables and scale construction carried out using a body of data on indicator variables one might anticipate any number of patterns. If the number of unidimensional components (or criteria) is relatively small, say 5 or 7, it would be best to summarize them in a single index. Exhibit 5.4 shows one such very simple pattern. This exhibit is presented for purposes of comparison with the more elaborate hierarchy in Exhibit 5.3.

EXHIBIT 5.3

HYPOTHETICAL FOUR-LEVEL HIERARCHY OF MEASURES

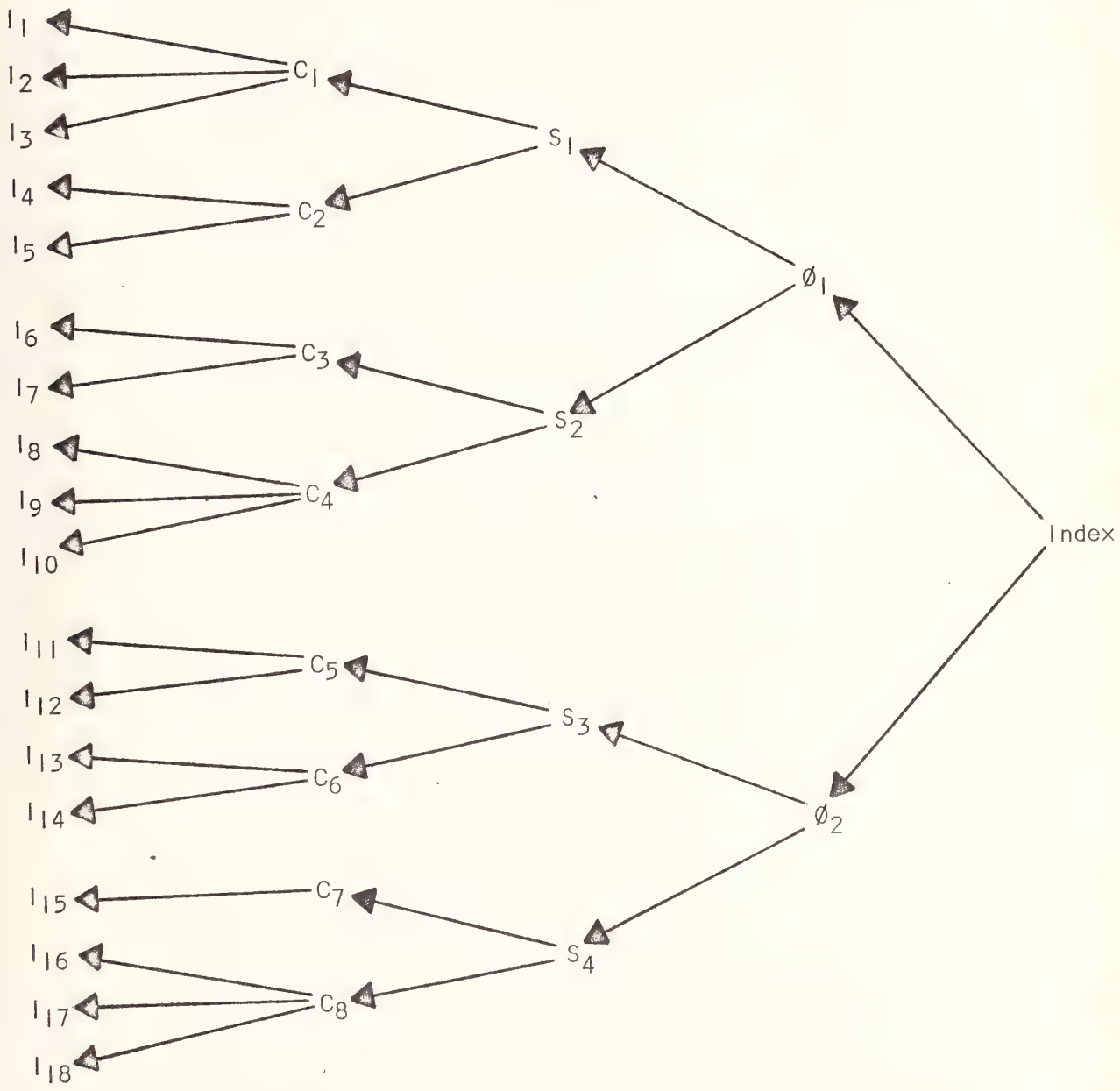
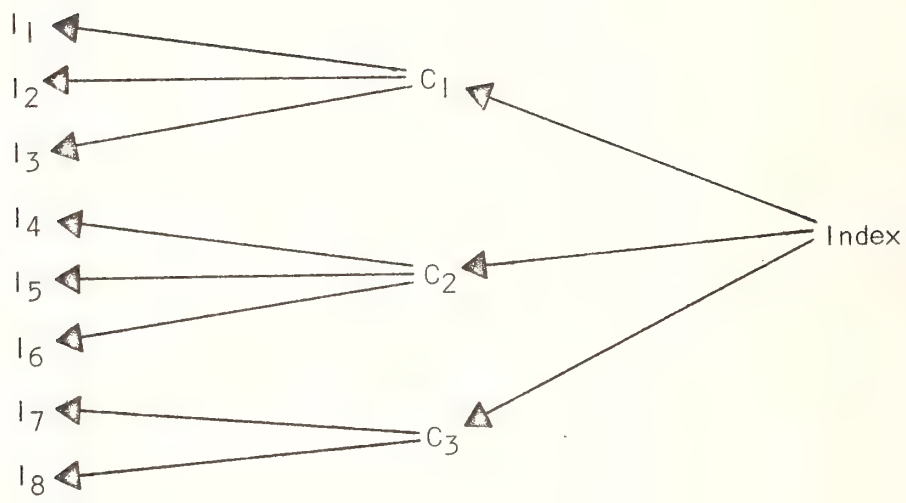


EXHIBIT 5.4

HYPOTHETICAL TWO-LEVEL HIERARCHY OF MEASURES



Although our hierarchy was developed from the bottom up (the initial data analysis having been structured by an a priori construct hypothesized at the more general levels), its usefulness in interpreting survey results lies in working from the top down. As explained in more detail in Chapter 3, a facility's quality index score can be decomposed into three major objective scores. Each major objective score in turn can be broken down into two to four subobjective scores. What emerges from the pattern of scores is a profile of the facility's relative strengths and weaknesses. For example, a facility with strong activity programming, good staff-resident interaction and a positive "ambience", but with indifferent physical nursing care and medical support services, will have high psychosocial environment scores and relatively low professional services scores. (These elements of the actual content of the quality construct are presented in Chapter 2.) Examination of each score's component parts allows us to pinpoint the facility's needs for improvement. This sort of analysis also allows us to think about what kinds of long-term care clients, with what kinds of needs, might benefit most from placement in a particular facility.

Section (c): Matching

The two independent hierarchies of measures of facility quality and resident need, and use of quantative methods in its derivation, are two important features of the quality construct. The third is a framework for combining measures of facility and resident attributes, with two goals in mind: (1) to assess whether an individual is placed in an environment more suited or less suited to his needs than other available environments and (2) to assess the particular strengths and weaknesses of a facility vis-a-vis the particular needs of its residents.

The matching component of the quality construct builds on two separate sets of criterion scales, one measuring unidimensional components of facility quality

and the other unidimensional components of resident need. Its elements are independent of the summary measures (subobjective, major objective and index scales) also based on each set of criteria. It uses an assessment of the resident's functional status, the set of need criteria, to identify the degree of correspondence between his needs and the facility's resources for meeting those needs.

Each dimension of need is considered independently. The individual resident's level of need on one dimension is related to a subset of the facility criteria most important to meeting that need. The result is a "matching score" for the individual. Each resident has one matching score corresponding to each of his need scores. A proper placement for him can be defined as one in a facility meeting all his needs at an acceptable level. The question of what constitutes an acceptable level is discussed below.

Another set of scales measures, as an attribute of the facility, the extent to which it meets the needs of residents. These scales, called "need satisfaction scores" are based on the matching scores of a random sample of the facility's residents. Each satisfaction score corresponds to one of the resident need scales and is a sample estimate of the percentage of residents whose need, as measured by that resident scale, is met by the facility. The following specific points may help clarify these relationships.

(1) In order to compute matching scores, one must have a set of need criterion scores for the resident and a set of quality criterion scores for the facility in which he has been placed (or might be placed). In order to compute a facility's satisfaction scores, one must have that facility's quality criterion scores and need criterion scores on each of a random sample of its residents.

(2) The satisfaction scores describe the facility in terms of dimensions of resident need. In contrast, the quality criteria describe the facility in terms of dimensions of facility quality. For statistical reasons discussed elsewhere (see

especially Chapter II), the correlation between an overall need satisfaction score and the quality index is extremely high. Yet the satisfaction scores provide another means of interpreting an overall quality score by decomposing into component parts corresponding to the needs of individuals. The main limitation on the usefulness of this additional information is the requirement that a needs assessment be done on a sample of the facility's residents sufficiently large to provide statistically stable estimates of the needs of the total census. This requirement is, of course, in no way a limitation on the usefulness of the matching scores as measures of the appropriateness of placement of an individual resident.

(3) We have already stressed in Chapters I and 4, and should reiterate here, that the needs assessment instrument and scales are not a mechanism for peer review (utilization review or medical audit) or for nursing care planning. They are, however, somewhat closer to the latter than to the former.

(4) The subset of facility scales matched with each resident need scale was selected judgmentally. This element of our development work stands in contrast to the development of the criteria and summary measures, which was based on statistical reduction and interpretation of data. The procedures are described in Chapters 7 and 9.

(5) The definition of what constitutes an "adequate" match--that is, what ratio of facility quality to resident need is sufficiently high--is relative rather than absolute. This is made necessary conceptually by the fact that the measures of facility quality and resident need are distribution-dependent. The procedure is to look at the distribution of each matching score and establish as a cut-off point some point in the distribution (for example), one standard deviation below the mean). Matching scores above the cut-off point are said to reflect "adequate" placement. The selection of cut-off points should be specific to the use to

which the data are put. For a given individual, matching scores can be computed for any number of facilities. What kind of discrepancy between matching scores for an already-institutionalized individual's present facility and some available alternative would justify or dictate transferring him is an extremely difficult question and one we have not addressed.

A number of conceptual difficulties exist in the use of the matching and satisfaction scores, despite their obvious appeal as components of a patient review and placement system. One line of argument is presented in the following paragraphs. It focuses on the use of the matching concept to determine appropriate levels of care, that is, whether an individual belongs in a skilled, intermediate, or sheltered facility, and to establish reimbursement levels for residents supported by public funds. Following this discussion, this application of the matching principle will be contrasted with its application to choosing among facilities at the same level of care but with different strengths and weaknesses making them appropriate for different types of residents.

The interpretation of matching presented in the research design is that, considering all nursing homes and all residents in nursing homes, an optimal system would have a minimum of mismatches between the skill level of care needed by the resident and the level of care offered by the facility. In this context it is equally a mis-match to have an individual placed at a lower level of care than he needs and to have one placed at a higher level of care than he needs.

The disadvantages of the first type of mismatch, high resident need with a low level of care, are painfully obvious. And by this definition, any elderly person in an institution not meeting minimal standards for care is mismatched because the facility cannot meet his/her needs. What about the second type--low need with a high skill level of care? Does it exist as a problem and, if so, is this problem related to assessment of quality of care? These general questions are, in a

sense, polemical and not for us to answer here. Many of the specific considerations involved, however, are germane to development of the quality construct. The following five objections to distinguishing among levels of care, and thus to matching by level of care, are referred to for the purpose of clarifying this development.

(1) Many persons in institutions that offer lower levels of nursing care could at times benefit from higher levels of nursing care. Flare-ups of chronic ailments or further deterioration among the resident population invariably necessitate the availability of skilled nursing care. Thus, an intermediate or sheltered care facility without this capacity will either ignore residents' needs or refer them elsewhere.

(2) Skilled level facilities do not necessarily provide skilled care to every resident. That is, having the capacity for skilled nursing care is not equivalent to forcing a person to use such care. The evidence is much the other way, at least in the better homes. Skilled care is available when needed but the effort is toward restoration rather than toward fostering dependency on nursing care.

(3) Delivery of "excessive" care is not a function of the skill level of the home but of the reimbursement system. If a nursing home operator receives payments based on a point system, where the reimbursement is for the amount of care given, then the tendency is to maximize need; maximizing need, in turn, creates excessive disability among residents. This phenomenon makes it difficult, if not impossible, to realistically assess resident need. If his needs are assessed after a resident has been encouraged to function at a lower level, then the assessment will underestimate his residual capacity.

(4) Residents with lesser needs may benefit more from being in a non-institutional setting than being in a nursing home setting with a lower level of nursing care. If we created home health services, as well as a variety of residential

settings where medical services are accessible, then many of the current nursing home patients could live in the community. Thus matching by level of care is less important than upgrading institutions and improving non-institutional resources.

(5) Mismatching of patient need and institutional skill level must not be confused with congruence between patient style and adaptive demands. For example, a home that is predominantly Bohemian-Catholic is less suitable for a Unitarian college professor than a protestant home of almost any denomination -- everything else being equal. If all nursing homes had the capacity to enhance or restore capacity for the activities of daily living, were rewarded for enhancing functioning rather than rewarded for creating excessive disability, and were embedded in communities that contained a range of services that help aged people remain in the community, then there still would be differences among nursing homes on psychosocial dimensions. Matching by patient style of adaptation and adaptive demands of the home would then transcend matching by medical need and institutional resources.

Although the circumstances do not exist in which psychosocial ambience is the only variable attribute of facilities that might affect placement decisions, and although matching by comparing life-styles of individuals with adaptive demands of facilities would probably require more sophisticated measures than are now available, we do have the capability to develop a matching construct oriented toward type of care rather than level of care. Consider, for example, two skilled level facilities, one with a very simple physical layout and a very warm, outgoing staff but weak in medical nursing skills, and another with a highly intricate floor plan, very professional, medically-oriented nurses and a cold, formal, hospital-like atmosphere. The first may be well suited for senile residents who need constant reorientation and emotional support but have few physical problems,

the second for post-operative patients in need of frequent treatments and nursing care. Either person might need "skilled" care, but each has different specific needs.

In a sense, the application of the matching concept proposed in the preceding paragraph lies somewhere in between application to decisions about the level of care needed for a specific resident and application to patient placement by life-style and psychosocial ambience. The matching components of the quality construct take account of a broad range of individual needs, from physical nursing care to social interaction, and a broad range of facility characteristics, from condition of physical plant to staff attitudes. They focus on a middle range of applications rather than on application to decisions about level of care.

One additional argument should be cited in concluding this discussion. It is possible that, in the long run, quality of care suffers when a facility specializes in post-operative patients, or in chronic institutionalized schizophrenics, or in physically disabled persons needing support for personal care. In this view, the whole environment, especially its psychosocial features, benefits from a broad mix of residents with different needs, and its ability to meet a given need depends in part on its ability to meet others as well. As a result, specialization should not be encouraged just as, in the argument discussed above, separate levels of care should ideally not be established by licensing agencies. This line of reasoning appears to imply that, to the extent that making placement decisions and/or evaluating facilities at the level discussed in this section encourages facilities to specialize in one type of care, it might be counterproductive. The impact of this criticism, if valid, would be to require extreme caution in the application of a system for patient placement. The danger would be that the success of such a system would contribute to the perpetuation of a degree of specialization harmful to quality of care.

The intent of the matching construct, however, is not to encourage specialization among long-term care facilities. In other words, it need not become a policy tool for influencing facility planning and development. The intent is, rather, to help cope with existing differences among facilities and their capabilities to serve different kinds of residents.

CHAPTER SIX

INITIAL DATA BASE DEVELOPMENT

Section (a): Instrument Selection

Construction of the initial data base was a two-part task. First, data was collected on each facility. Second, data was collected on a random sample of the residents in each facility. The latter set of data was used to develop a patient review procedure for assessing appropriateness of placement. The task of selecting tools and collecting data on patients, however, was a separate one. For maximum clarity, our discussion will treat the facility evaluation and patient review components of the data base independently.

Initial data base development began with a review, documented in Chapter 4, of existing facility evaluation and patient review methods in long-term care and related fields. From these existing methods, instruments were selected to collect facility and resident data. Criteria for selection of the environment and resident assessment instruments included (1) time required for data collectors and facility staff to complete the forms, (2) ease of administration, and (3) the methodological requirements of the project. The instruments were modified in varying degrees to make them appropriate for long-term care settings and to facilitate their administration. As an overview, the set of instruments selected are described in Exhibits 6.1 (facility data base) and 6.2 (resident data base). Copies of the initial data collection instruments themselves are available on request (see Appendix H).

Section (b): Facility Selection and Orientation

A purposive sample of nine long-term care facilities was drawn from a larger number which had expressed interest in response to inquiries at the time the project was funded. Facilities were selected to be roughly representative of all those in Illinois on several key structural variables. In addition, they were

EXHIBIT 6.1

FACILITY DATA BASE INSTRUMENTS

Instrument	Content/Description	Data Source	Reference
Administrator's Report	abridged from JCAH Survey Report Part I, Application for Survey (96 items)	filled out by facility's administrator	Joint Commission on Accreditation of Hospitals (1968)
Review of Organization, Policies and Practices	abridged from JCAH Survey Report Part II (257 items)	filled out by skilled observer	Joint Commission on Accreditation of Hospitals (1968)
Environmental Assessment	psychosocial assessment of facility (332 items)	completed independently by two skilled observers	Lieberman et al (1969)
	Part I, Interview (137 items)	supervisory staff person	
	Part II, Observation (195 items)	tour of facility	
Staff Questionnaire	Community Oriented Programs Environment Scales (COPES)	each form filled out by a sample of 8-10 staff	Moos (1972)
	Form A (47 items)		
	Form B (45 items)		
IDPH Licensing Survey	273 item form incorporates State standards and Medicaid SNF and ICF standards	IDPH nurse surveyors and geriatric home inspectors*	Illinois Department of Public Health (1972)

* These data were provided to us by IDPH from their files, rather than being collected by project staff using IDPH forms.

EXHIBIT 6.2

RESIDENT DATA BASE INSTRUMENTS

Instrument	Content/Description	Data Source	Reference
Physical Status Report	measures of self-care competence and health status (35 items)	resident and staff informant	
	Northwestern University Disability Scales (NUDS)		Canter et al (1961)
	Activities of Daily Living (ADL)		Katz et al (1970)
	22 other items		---
Patient Interview	measures of cognitive functioning (56 items)	resident	
	selection from Wechsler Memory Scale (8 item scores)		Wechsler (1945)
	Memory Span for Objects (4 item scores)		Wells and Ruesch (1945)
	Picture Absurdities Test (7 item scores)		Terman and Merrill (1960)
	Digit Span Test (4 item scores)		---
	sentence production section of Minnesota Test for Differential Diagnosis of Aphasia (16 item scores)		Schuell (1965)

(continued next page)

EXHIBIT 6.2 (continued)

Instrument	Content/Description	Data Source	Reference
Patient Interview (continued)	Peabody Picture Vocabulary Test (4 item scores)		Dunn (1971)
	abridged version of Right-Left Discrimination Battery (13 item scores)		Benton (1959)
Patient Observation Checklist	56 item form measuring physical status and nursing care needs	observation of resident	---
Resident Attitude Interview	24 items measuring satisfaction with the facility	interview with resident	---
Patient Information Form	90 items measuring diagnoses, orders, treatments	filled out by nursing staff from chart	---
Patient Rating Scale	Geriatric Rating Scale (35 items)	filled out by each of two staff	Plutchik et al (1970)

selected to maximize variation in quality as subjectively assessed by project staff.

Sample Selection

Project staff identified ownership, geographic location, predominant race of residents, size, and quality as appropriate criteria for selection. It was agreed that an attempt be made to develop a sample of homes having the following characteristics:

(1) It should include four proprietary agencies, three voluntary agencies, and one public agency.

(2) Three agencies should be urban, two suburban, and three rural or located in a small town.

(3) Two agencies should be judged to be of a relatively high quality, three of moderate quality, two of lower quality, and one of very poor quality.

(4) The sample should have a mix of facilities serving predominantly black or white residents.

(5) The facilities should be roughly uniform in size, somewhere in the range of 100 to 200 beds.

The question of the level of care at which the facilities should be licensed (skilled, intermediate, sheltered) was discussed at length. It was decided that it would be preferable to focus the initial data collection on homes offering skilled care. Otherwise the sample specifications would be inordinately complicated and probably impossible to meet from the list of facilities interested in the project. The rationale was that skilled care homes actually offer care at different levels to different residents, whereas sheltered homes offer only sheltered level care. Thus, a sample of homes all having at least some skilled beds would generate the broadest range of data on residents and on quality of

care.

With these criteria established, initial contacts were made in August 1972 by letter with 11 facilities that had responded to an earlier request for an expression of interest in the project. The letter asked that a specific liaison person be appointed at each agency to expedite communication during the initial data collection phase of the project, and that an initial visit by the project's field coordinator be arranged. Since the possibility of bias through self-selection of those facilities responding to a preliminary solicitation of interest was a real one, project staff established contact with two other facilities that had not responded to the initial contact. These were selected so as to balance the pool of available facilities in terms of the criteria spelled out above. Initial visits were made to 13 facilities.

At the time of this visit by the field coordinator, the administrator of each facility was given a written memorandum detailing the scope and objectives of the study, guidelines for the field work, and our expectations as to the kinds of information we would ask for (Interim Report, I, Appendix B-1). The field coordinator's visit also provided an opportunity for her and the agency liaison person to work out methods of communication, for the field coordinator to tour the agency, and for a more thorough explanation of the project to the administrator. Most important, this visit allowed testing of initial impressions of the home and assessment of suitability for inclusion in the sample. Following these initial visits the eight sample facilities were selected.

The field coordinator arranged the 13 places in rank order of quality on the basis of her observations. The first two and the last two were included in the sample to maximize variations in quality for the analysis. Four others were selected to come as close as possible to meeting the remaining criteria. In general, the sample was designed to be representative of skilled homes in northern Illinois,

except in terms of quality, where an attempt was made to over-represent the extremes.

The five facilities among the original 13 that were not included in the sample were notified by letter that there was a delay in the selection of the sample and that the project staff would be in touch with them in a few months. This was done to insure that they could again be asked to participate should one of the eight selected find it necessary to withdraw from the project. As it happened, during a long delay between sample selection and the actual field work while forms were reviewed by the Office of Management and Budget (OMB), one of the eight homes underwent several changes in administration. After a number of contacts with the home's new administrator and liaison person, it was still unclear whether it would continue in the project and a ninth home was asked to participate on the assumption that the home in question would drop out. The new facility was selected from the five available to most clearly match the one that might be lost.

Participation of the facilities was solicited on the basis of complete confidentiality of all data collected.

Exhibit 6.3 shows the distribution of the nine sample facilities on the characteristics used in their selection. The facilities are listed by an identification number to be used throughout this report. Note that the subjective rating given is the rank among all 13 facilities contacted initially.

EXHIBIT 6.3

INITIAL DATA BASE SAMPLE CHARACTERISTICS

Facility ID	Location	Ownership	Approximate Beds			Certification		Staff Ratio*	% of Residents**		Initial Subjective Ranking
			Skilled	Inter-mediate	Sheltered	Medicare	JCAH		On Public Aid	Nonwhite	
1	Suburban	Proprietary	110			Y	Y	.63	30%	3	4
2	Suburban	Voluntary	180		120	Y	Y	.78	0	0	7
3	Suburban	Public	200	90		Y	Y	1.21	71	n.a.	1
4	Small Town/Rural	Voluntary	50		70	Y	Y	.93	24	0	2
5	Urban	Proprietary	310			N	N	.40	86	3	13
6	Urban	Proprietary	240			N	N	.48	98	40	12
7	Urban	Proprietary	190			Y	N	.59	80	n.a.	9
8	Small Town/Rural	Proprietary	70			Y	N	.78	33	0	8
9	Suburban	Proprietary	200			Y	N	n.a.	60	n.a.	10

* Ratio of approximate total employees, including part-time, to bed size, as reported by administrator 8/72.

** Approximate, as reported by administrator 8/72.

Orientation of Agency Staff

A thorough and consistent orientation of all facility staff was emphasized in order to assure maximum cooperation and to obtain benefit from staff points of view on quality evaluation. First, the field coordinator contacted the agency's liaison person and scheduled a 90 minute orientation meeting for all department heads and/or supervisors (as determined by that agency's administrator). This was to be at least 3 days prior to the field staff's arrival for data collection. Second, department heads and/or supervisors were asked to distribute (usually with the next paycheck) a written description of the project to all agency staff on all shifts in their departments and/or areas. This description is presented as Appendix B-I.

The 90 minute orientation meeting for the administrative and supervisory staff included the following topics:

(1) An overview of the project

(2) Brief professional and field staff biographies

(3) The proposed survey dates

(4) Overview of the field work

(5) The role of the agency personnel

Most importantly, the agency staff were asked, as "experts in the field of Long-Term Care", what they would do to evaluate the quality of life and care in their own facility. To indicate to the agency the project staff's interest in this input, these suggestions were tape recorded and subsequently used as a resource for further planning and instrument design.

The orientation sessions also stressed the issue of confidentiality of answers to questions and attempted to focus on the fact that although the field staff would sometimes behave like inspectors they were, in fact, researchers and that any information obtained from individuals--residents and/or staff--would not

be available to any official agency in undisguised form.

The response of the nine sample facilities' staffs was positive, as indicated by comments such as the following:

"...this is a good chance for us to find out about ourselves..."

"...how we compare with other places like this...we couldn't afford to pay for such a study."

"...a chance to see what we are doing wrong and what we do right...how well we're doing in general."

"...an opportunity to be part of the outside world...we're so far away from everything here..."

Orientation programs were completed during September, 1972 in the eight facilities initially chosen to participate in the project. Field work was then delayed by OMB clearance procedures and, after a six month hiatus, the eight facilities were contacted again and offered a new orientation session. Only one felt a new orientation was necessary and that session was held in February, 1973. At this time the ninth facility was added to the sample and an orientation session was conducted there as well. In addition, to assure continued staff understanding and to allow for any facility staff turn-over during the six month delay, a revised version of the document introducing the project to facility staff was prepared and copies circulated to all facilities in the sample. This document is reproduced as Appendix B-2.

Section (c): Data Collection and Debriefing

Field Staff Selection and Training

Field staff were selected on the basis of their previous research experience, work experience in long-term care facilities and/or public health agencies, and an

interest in being involved in a study oriented towards the evaluation of long-term care. The project staff felt that tact, understanding, and the ability to gain the confidence of agency personnel and residents were the most desirable qualities, as the techniques to be used with the selected tools could be readily taught. In general this proved to be the case.

Two people, an R.N. with long-term care experience as a director of nursing in a home for the aged and a doctoral student in social work with extensive case-work experience, administered the Environmental Assessment instruments. They were trained in a one-day orientation by Darrell Slover of Syracuse University, the designer of the instrument, followed by two 8 hour practice sessions in two cooperating facilities. Subsequent field experience showed that more time was needed to acquaint the surveyors with the concepts of proxemics and environmental manipulation around which the instrument had been developed, as well as other psychosocial concepts.

Data for the Review of Organization, Policies and Procedures (Joint Commission survey) was collected by a psychiatric nurse with considerable research and long-term care experience. Her orientation consisted of informal discussion of the objectives of the data collection and reivew of the forms. Prior to this, she had had substantial input into the instrument selection process. The field work in this instance revealed that the surveyor made value judgments not necessarily based on observable measures. This indicated a need for a surveyor orientation program that defined as clearly as possible the basis for judgments.

Training of the six people who collected patient review data was of necessity more detailed. Three registered nurses, two with masters degrees in nursing, were responsible for the physical-medical assessment (Physical Status Report, Observation Checklist, plus the administration of the written Geriatric Rating Scale and Patient Information Form). They were oriented to the project during a one-day

classroom session and a one-day practice session in a cooperating long-term care facility. For surveyors with this level of skill in observation and assessment, this proved to be adequate.

Another three people were trained to administer the psychological tests (Patient Interview) and the Resident Attitude Interview in a two-week program designed and carried out by the RPSL Department of Psychology. These three individuals were a high school teacher, a social worker trained in group work, and a Catholic priest. The training was based on the Department of Psychology's previous experience teaching non-psychologists to administer psychological tests, and included classroom discussion, role-playing, and practice testing of older individuals under close supervision and observation. From this experience with the psychological tests selected for this project, Department of Psychology staff concluded that a week and a half would be adequate for training baccalaureate nurses in this aspect of the patient review procedures.

All nine field staff were instructed to record specific incidents and their subjective responses to each facility and its residents in a notebook, to augment the data to be recorded on the schedules. The contents of these notebooks are summarized in Appendix A of our Interim Report, I.

Field Work

While the orientation and training of the field staff was in progress census lists of residents in each of the facilities were obtained. The specific residnets to be assessed were chosen at random by a statistician and the names given to the field staff immediately before they left for the agency. At this time the Administrator's Report was sent to each facility with a letter requesting that it be completed by our data collection deadline. Firm dates were established through the liaison person at each facility for the field staff's visits.

As mentioned earlier, one of the eight original facilities had, during the hiatus between agency orientation and the start of field work, undergone changes of administration. Negotiations with the new administrator early in the data collection period resulted in our being able to complete the data collection on the facility, but not to obtain any patient review information before the deadline for field work. We meanwhile selected, oriented, and obtained a complete set of data from a ninth facility. As a result, our initial data base consists of facility data on nine agencies and data on 10 per cent random samples of patients in eight of them.

As it was felt that having too many people present at once would both interfere with the data collection itself and possibly affect the care of residents, the field staff was organized into four groups or "waves": Environmental Assessment; Review of Organization, Policies and Practices; Physical-Medical Patient Review; and Psychosocial Patient Review. No more than one group was scheduled in a facility on any given day. Thus, the sequence in which data was collected was somewhat different in each home.

Prior to each survey a 10 per cent sample of residents was chosen at random from the agency's census list. At the same time a list of alternate resident names was chosen. These were to be used if substitutions became necessary or exclusions had to be made.

In most instances the nursing field staff doing the physical-medical portion of the review made the initial contact. Thus any obvious interviewing problems were screened, substitutions made, if necessary, and communicated immediately to the psychological testing staff. The latter field staff used more stringent criteria for the inclusion of a resident. The resident was included and scored even if:

(1) he/she were uncooperative because of dementia (any type),

(2) he/she were too disoriented to respond,

(3) he/she were able to see and/or hear and were able to respond in any significant way, i.e. wiggle a finger, click teeth, blink eyes.

The goal was to obtain a complete set of data on a 10% sample of residents in the eight facilities. This was achieved in two of the eight facilities; the other completion rates varied from 7.3 per cent to 9.7 per cent. Exhibit 6.4 indicates the overall response rates for the eight facilities. It is noteworthy that facilities nos. 1 and 9 were scheduled at the end of a particularly busy week for the testing staff and the response rate may reflect their level of fatigue more than any other factor.

Although we originally planned to have facility nursing staff fill out the Patient Information Forms and mail them back, the nurses doing the physical-medical patient reviews discovered that in some agencies it was more efficient, and made their presence more welcome, to take responsibility for completion of the forms themselves. Only one facility staff nurse point-blank refused to cooperate with this aspect of the data collection, saying as she handed the forms back to the field staff person, "My doctor said I didn't have to do these." The new patient review procedure developed later is based on review of the patient's record by the surveyor and doesn't require staff time to fill out a form.

In addition to the Administrator's Report, mailed ahead of time, and the two waves of field staff, facility information was obtained using two paper-and-pencil forms. The COPES scales (Staff Questionnaires A and B) were each administered to samples of 7 or 8 staff in each facility. Staff were selected by the liaison person and the data collector (usually the field coordinator herself) to fill out a form

EXHIBIT 6.4

RESIDENT SAMPLE COMPLETION RATES

(a) Percentage of Original Sample Completed (not counting substitutes completed)

Data	Facility								All Facilities
	1	2	3	4	5	7	8	9	
Psychological testing	82%	80	79	83	81	84	86	60	78%
Physical-medical	82	90	100	92	81	95	100	95	91
Original Sample Size (= 100%)	(11)	(30)	(29)	(12)	(31)	(19)	(7)	(20)	(159)

(b) Percentage of Total Census Completed (counting substitutes completed)

Data	Facility								All Facilities
	1	2	3	4	5	7	8	9	
Psychological testing	9.7%	10.8	10.1	10.2	10.7	10.6	10.1	8.5	10.1%
Physical-medical	10.7	10.8	10.1	10.2	10.7	12.2	10.1	11.3	10.7
All data	9.7	8.6	8.0	8.5	10.0	10.0	8.7	7.3	8.8
Total Census (= 100%)	(103)	(278)	(286)	(118)	(300)	(189)	(69)	(177)	(1520)

on the basis of their availability and time. Although these samples were not systematically drawn, no specifiable source of bias was apparent in the procedure.

Field Staff Debriefing

During the two weeks following completion of data collection each "wave" of field staff was reassembled for a debriefing session. Each two to four hour session was tape-recorded. These sessions included both field experience with the instruments and subjective impressions of the facilities.

The debriefing sessions for the two Environmental Assessment people focused on the difficulties experienced using the Slover instruments and on incidents witnessed in the various facilities. Difficulties included the length of the observation schedule, concern as to whether the agency staff member selectedffor interview really knew the answers to the questions asked, the lack of clear operational definitions of public, social, and personal space as these terms ase used in the instrument, and some answers that seemed not to be codeable or fit any of the response categories.

The field staff responsible for the relatively unstructured Physical Status Report had trouble with this data collection schedule. These problems included repetitions, ambiguities of language, and the length of time it took to interview some aides about patient status. Under most circumstances the field staff found themselves paraphrasing the material and/or looking for significant words that would clarify the meanings of the questions. Still other problems were presented by the diagnostic orientation of some of the questions and the lack of discrimination in such response categories as, "performs half of dressing activities" (Physical Status Report, page 2). All the field staff reported hearing some version of the question "which half--top or bottom?" from facility staff.

Data collection problems identified by the psychosocial patient review staff

included the length of the total set of psychological tests, mechanical difficulties discovered during the administration of these tests, and hostility elicited during initial contacts with some residents when they introduced themselves as researchers from a hospital-medical center named after a saint and a religious denomination. These factors were compounded by their own sense of outrage at how they saw vulnerable but still fairly competent individuals treated by facility staff.

One generalization this group made was that facility residents not primarily from middle and upper-middle class backgrounds viewed the testing procedures with great suspicion and hostility. A further comment on the psychological assessment tools was that well-oriented individuals tended to be insulted when presented with the easier tests, while less intact residents often became so tired that they could not complete the material. As time--a constant constraint--was short and as the total sample had to be completed in the time allowed, the testing staff often had to push to complete the schedules even when they and the resident knew that, under less pressure and with more time to test between items, the subject could score better.

In spite of the problems encountered by the psychological testing staff the data was found to be valid and reliable in the course of the analysis.

All field staff kept notebooks recording their impressions of and experiences in the facilities. These notebooks supplement the taped discussions and were also the source of comments included in Appendix A of our Interim Report, I. In addition, after the debriefings were completed all project staff who had visited two or more of the facilities took part in a scaling experiment to generate subjective ratings of the nine places. The tactic used was the method of paired comparisons, which generates for each of a set of objects a numerical score on an interval scale according to a predefined attribute. For each possible pair of faci-

lities each person had to chose one "in terms of overall quality, including both quality 'as a place to spend your old age' and quality 'as a place to receive nursing care'." The resulting choices between pairs were scaled using the computational routine in Torgersen (1968: 173-176). The home rated lowest was arbitrarily assigned a score of zero and other scores assigned proportionately. The actual scores were:

Facility	Paired Comparison Rating
1	1.05
2	2.33
3	2.52
4	3.11
5	.68
6	.00
7	1.20
8	1.92
9	1.99

These data were discussed substantively in a previous report (Interim Report, 1: 129-131) and will be referred to in Chapter 10.

Reports to the nine facilities on both the quality indices derived from the initial data collection and subjective impressions of field staff were postponed until after completion of pilot testing and final report. In this way, feedback from the project would have the smallest possible effect on the facilities' quality scores in the pilot-test surveys. At the end of the project, each facility was debriefed on the results of the pilot tests (see Chapter 8 and Appendix E-2).

CHAPTER SEVEN

DATA REDUCTION, ANALYSIS AND SYSTEM DESIGN

Section (a): Scale Construction

The criterion scales are aggregations of items relating to the attributes of which the criteria are measures. The content of the set of items comprising the scale serves to define the criterion-level attribute. Because our initial survey instruments were developed by synthesizing various extant instruments, arbitrarily grouping items from these instruments to form scales was a questionable operation. Rather than attempting an assignment of items to criterion scales formulated a priori, an attempt was made to use statistical techniques to group the items and in this way identify measurable attributes. These groupings then became the criterion scales, and the attributes thus defined are the basic components of the quality construct.

Item Analysis

The first step in the analysis was to examine the ability of the individual items to discriminate among residents or facilities. This characteristic was measured by the frequency distribution of responses for each item. As variability of responses was considered again at later stages in the analysis, a low level of discrimination was deemed acceptable at this initial inspection and only those items with more than 95% of the subjects responding in one category were excluded.

For some items, subjects were rated twice by different data collectors or informants. The difference between raters provided a good indication of the reliability of the item. For this reason, the mean differences were computed over all subjects, and where there was a sizable disparity (in relation to the range of the item) consideration was given to discarding the item as being unreliable.

For the COPES instrument, a different number of raters (facility staff) were sampled in each facility. However, this instrument was used to measure characteristics of the facilities and thus a single response (item score) on each item was required for each home. To convert these multiple responses to a single score, the mean value over all the responses in a home was used. The possible mean values ranged between 1 and 2, and this range was divided into equal intervals. The interval into which the mean fell determined the score for the home on the item, (i.e., if the intervals were of size 0.25, and the mean score was 1.3--thus falling in the second interval--the item score would be 2). This procedure differs from grouping the mean values into quartiles in that it takes into consideration the ability of the resulting measure to discriminate among facilities. For example, if the mean item score ranges between 1.10 and 1.15 across all facilities, grouping into quartiles would create the appearance of power to discriminate among homes where the item does not in fact discriminate.

In addition to these item scores measuring average level of agreement with the COPES questionnaire items, a second set of scores were derived from the same data measuring the consistency of the staff's responses. These scores were assigned distinct item numbers and grouped into a separate subobjective designated "consistency of staff attitudes." For the 96 items in this subobjective, a facility's item score is a measure of the extent to which staff agreed with each other in responding to the item. This measure is the square root of the mean of the squared differences between the responses of individual staff members. It is similar to a standard deviation but more appropriate to our purposes. This score measures the degree to which staff concur with each other about the item independently of whether they consistently say the item is true or consistently say it is false. This measure of consistency varies between 0 and 1.00. For analysis, these values were grouped as follows:

0 - .25 = 4
.25 - .50 = 3
.50 - .75 = 2
.75 - 1.00 = 1

Finally, items scored on interval scales were collapsed into ordinal categories for analysis. These included numbers of beds, patients, and staff falling in various categories. Numbers of patients were taken as percentages of the total census and the percentages collapsed; numbers of staff were generally taken as ratios to the total bed capacity before collapsing.

Cluster Analysis

The criterion level characteristics of patients and facilities were identified by statistically grouping the items. The technique employed is cluster analysis, which groups items according to similarities in their pattern of interrelations. This similarity indicates the presence of an attribute underlying the behavior of the items. This was the first step in creating our scales.

To facilitate the use of this analysis technique the items were grouped into preliminary "subobjectives", and data matrices of [subjects x items] created for each subobjective. We feel that this *a priori* assignment does not introduce any important bias into our analysis since divisions among subobjectives are quite clear. This considerably simplified the computations by decreasing the size of the matrices requiring independent analysis. Some items were included in more than one *a priori* grouping, allowing for the possibility that itmes might be important to more than one area.

Exhibit 7.1 presents a description of the preliminary facility subobjectives entered into the cluster analysis. The letters assigned to each subobjective are preserved in the labels assigned later to criterion scales. Thus, scale A03 (or A - 3) was created from the first subobjective, dealing with physical plant.

EXHIBIT 7.1

FACILITY SUBOBJECTIVE DESCRIPTIONS

	Major Objective		Subobjective	No. Items Clustered	No. Clusters Formed
I.	Facility provides safe and comfortable living arrangements.	A.	Physical plant is safe, comfortable and attractive	94	6
		B.	Hotel services contribute to residents' well-being	69	7
		C.	Food served is palatable and nutritionally sound	66	4
II.	Bio-medical services promote development of the resident up to his full potential	D.	Medical staff and care	62	8
		E.	Nursing staff and care	112	10
		F.	Pharmacy and medications	46	6
III.	Psychosocial care promotes development and rehabilitation of the resident up to his full potential	G.	Personal development supported by resources and programs	171	5
		H.	Social development supported by resources and programs	88	2
IV.	Social interaction	I.	Level and quality of interaction among patients	47	1
		J.	Staff attitudes and interaction between staff and patients	142	9
		K.	Staff consistency	92	10
		L.	Staff education and interaction among staff	63	3
V.	Other	M.	Administration	12	3
		N.	Records, evaluation, monitoring	45	2

EXHIBIT 7.2

PATIENT SUBOBJECTIVE DESCRIPTIONS

Major Objective	Subobjective	No. Items Clustered	No. Clusters Formed
I. Physical/Medical	1. Basic Physical Functioning	59	10
	2. Self Maintenance	29	4
	3. Medical Assessment	61	3
II. Psychosocial	4. Psychological Status	89	5
	5. Behavior and Social Status	73	8
	6. Patient Interview (Psychological Testing)	56	7

Exhibit 7.2 presents a similar description of the preliminary patient subobjectives. Numbers rather than letters were assigned to subobjectives to distinguish them from facility subobjectives. Thus, scale 502 (or 5 - 2) is a patient criterion scale derived from analysis of items in the fifth patient subobjective,

dealing with behavior and social status.

The coefficient of association between items used in our analysis is Somer's d (Somers, 1962). Somer's d is, in essence, a measure of the degree to which item scores vary conjunctively. It is based upon the probabilities that two subjects will respond in a like manner in relation to the ordering on a pair of items (i.e., if the first respondent is rated lower on item A than the second respondent, then he will be rated lower on item B). Somer's d was chosen in preference to a covariance measure particularly because it is theoretically appropriate to ordinal data, and it thus did not require us to assume that items are measured on interval scales. A matrix of Somer's d was prepared for each subobjective for entry into our clustering routine.

The specific technique employed was "Average Distance Clustering," which groups items into clusters of "similar" elements based upon the average association between items (Lance and Williams, 1966, 1967). This algorithm groups items into clusters by maximizing the average association between items within the cluster. The clusters are considered real if they are sufficiently compact and isolated. Compactness of these clusters is indicated by the average association between items in the same cluster--the higher this average, the more compact. Isolation is indicated by the association of the items in cluster A with those in cluster B--the lower the association, the more isolated. The degree of compactness is determined in relation to the average association of all the items in the subobjective.

Results from the clustering program were analyzed by professional staff to identify the relevant clusters (based on isolation and compactness). The group of staff involved, referred to in this chapter as a "panel of experts", included Drs. Tobin, Davis, Cheifetz, Garron, and Buchanan, Ms. Feldman, and Mssrs. Hundert and Richard.

Clusters so identified, containing items very highly associated with each other and thus presumably sharing a common factor, were taken to represent criteria. A criterion name was later assigned to each of them. They were then compared with a priori hypothesized criterion groupings. This comparison was carried out both as a rudimentary validation of the statistical analysis and as a means of providing added insight into the significance of the cluster. At this point consideration was also given to whether items that did not cluster did in fact measure something important to the subobjective, indicating a need for the generation of more items relating to this characteristic, or whether such items should be discarded.

Once items were grouped in relation to the underlying attributes they measure, an intensive analysis of the individual items in each cluster was carried out. This analysis was based upon the relationship between the items and the attribute of which they were indicators. As an initial estimate of the attribute measures (criteria scores), cluster scores were computed. The cluster scores were were the unweighted sum of the item scores of those items within the cluster.

In order to make the cluster scores more reflective of the relationships between items, those items with a negative Somer's d association with the other items in its cluster were recoded to reverse the direction of scoring before cluster scores were computed.

At this point the items were spuriously weighted based upon the number of response categories for each item. Thus, extreme scores on a six category item were more highly weighted than extreme scores on a two category item. These weights bear no relation to an item's importance as an indicator of the underlying attribute but merely represent the design of the instrument from which the item was drawn. To rectify this situation, the item scores were standardized. This was done using the usual formula.

$$z_i = \frac{I_i - \bar{I}_i}{s_i}$$

where z_i = standardized score of i^{th} item

I_i = unadjusted score of i^{th} item

$\bar{I}_i$ = unadjusted mean score on i^{th} item

s_i = sample standard deviation on i^{th} item

$$s_i = \sqrt{\frac{\sum_{i=1}^{n} (I_i - \bar{I}_i)^2}{n - 1}}$$

This resulted in a description of each item on a common scale, with a mean of 0 and a standard deviation of 1. Unfortunately it also created the possibility of negative item scores which, for ease in interpretation, we wished to avoid. For this reason the standard scores were converted to a new scale with a mean of 15 and a standard deviation of 5. The conversion formula is $Z_i = 5z_i + 15$. These converted scores express a subject's response in relation to the standard deviation from the mean of all subjects. It is important to note that this conversion is a linear transformation of the raw scores, and thus we lose no information in the transformation process.

The analysis of the individual items in each cluster was based upon the mean value of the cluster score of patients or facilities falling in each item category. The computation of the category means is relatively simple. Looking at clusters independently, for a dichotomous item compute the average total score on that cluster (excluding the scores on the item in question) for all the patients that score "0" on that item, and the average total cluster score for all subjects that score "1".

Item Score	Category Mean
0	$\bar{X}_1$
1	$\bar{X}_2$

For a polytomous item, for each possible scoring category, compute the average total cluster score (excluding that item) of subjects that respond to this category.

Item Score	Mean Score
1	$\bar{X}_1$
2	$\bar{X}_2$
3	$\bar{X}_3$
4	$\bar{X}_4$

The score of the item in question was excluded to minimize the effects of auto-correlation on the statistics. This means that the analysis of each item involves computation of a different set of criterion scores excluding that item.

The first statistics analyzed were the category means themselves. These means were used to determine which of the items hypothesized to be ordinally scored actually exhibited a monotonic relationship to the underlying attribute. For dichotomous items, when $\bar{X}_1$ is greater than $\bar{X}_2$, the order of scoring is reversed. The rationale for this is that we would like a "high" score on the item to reflect a high score on the criterion. For polytomous items there were two cases to be considered.

The more prevalent case was where the ordinality of the item score was known. When the category means retained their ordinality, i.e., $\bar{X}_1 < \bar{X}_2 < \bar{X}_3 < \bar{X}_4$, then no change was made in the item. When there was a slight deviation from ordinality in the category means, those categories wherein the deviation occurs were collapsed to retain ordinality; e.g., if $\bar{X}_1 < \bar{X}_2 < \bar{X}_4 < \bar{X}_3$, then X_4 and X_3 were combined; if $\bar{X}_2 < \bar{X}_1 < \bar{X}_4 < \bar{X}_3$, then X_2 and X_1, and X_4 and X_3, were combined. Where significant deviation from ordinality occurred, the items were discarded (reserved for later

judgment), or re-examined to determine whether ordinality was a correct assumption in light of the defined attribute.

With the item scores adjusted for ordinality and direction, the next step in the analysis was to determine whether the items were significantly discriminating (i.e., the difference in the total score that the item can predict is significant). For dichotomous items to measure the degree of discrimination, a t-test was used on the difference between category means with $N_1 + N_2 - 2$ degrees of freedom, where N_i is the number of subjects falling in category "i". For polytomous items, analysis of variance was used on the category means to determine whether the discriminating power of the items was significant. The statistic used for this test of significance of the difference between category means is the F statistic with K - 1 and $\sum_{1}^{k} N - K$ degrees of freedom, where K = number of categories of the item. In order not to eliminate 'too many' items initially, an α of 0.25 was used for the F and t-tests. Those items whose category means did not prove to be significantly different even at this level of significance were discarded.

The significance of the difference in category means of the polytomous items only indicated that at least two of the category means were significantly different. At this point the individual differences were examined by "eyeball" methods to determine which were significant. Where significance was detected and there was large variance in the magnitude of the differences between category means (the categories at this point are all ordinal), those categories with relatively small differences between means (and thus not signigicantly different) were readily detectable and were collapsed together. This seemed preferable to any multiple-range tests since we could save ourselves a great deal of computational complexity with almost the same degree of reliability.

On the basis of this analysis criterion groupings of items were redefined to

omit those items that failed to discriminate adequately among item-exclusive total scores.

Scale Construction

The components of the scales for the underlying attributes are the items which serve to indicate the presence of the attribute in question. The scaled measure of a criterion variable is a weighted sum of the item responses. The generation of the scales consists of assigning weights to the grouped items. A probability measure, developed specifically for this analysis*, was used to measure the ability of each item to predict total scores on the remaining items in the modified clusters. These measures of predictive power were used as item weights in the scales resulting from this phase of the project.

The probability measure was constructed to represent the association between an item and the corresponding cluster score. It reflects the probability that the cluster score is high when the item score is high and the cluster score is low when the item score is low. Derivation of the measure can best be explained by use of a hypothetical example.

Suppose data on a grouping of items are available for 20 subjects as follows:

Item score	1	1	1	2	1	1	2	2	1	2	2	2	3	2	3	2	2	3	3	3
Item-exclusive total	10	11	11	12	13	15	17	18	20	21	21	23	25	25	27	30	31	32	32	35

There are 6 item scores of "1", or 30 per cent; 9 item scores of "2", or 45 per cent; 5 item scores of "3", or 25 per cent. The subjects are ordered by increasing cluster scores, and then grouped into as many sets as there are non-empty item response categories, each with as many elements as there are subjects in the corresponding item category. Thus, the first six cluster scores ranging from 10 thru 15 fall into the first set, the second nine ranging from 17 to 27 into the second set,

* This measure was subsequently altered for the pilot test analysis (see Chapter 9(b).

and the third five ranging from 30 to 35 into the third set. Heavy vertical lines in the figure demarcate these groupings. This procedure amounts to collapsing the total scores from an interval scale to an ordinal one with the same marginal distribution as the item.

The probability measure is based on the proportion of cluster scores that fall into the "correct" set as indicated by subjects' item scores. In our example, since there are six subjects with item scores of 1, the lowest six cluster scores are examined. The proportion of correct predictions for this item category is the number of subjects in the set with item scores of 1 divided by six, or 5/6 = .83. This computation is carried out for each category in which there are respondents. The actual measure is defined so that no category is overweighted based upon the number of respondents, by taking the average of the proportions for each response category. Thus, in our example, the value of the probability measure is

$$P = \frac{1}{3}\left(\frac{5}{6} + \frac{6}{9} + \frac{3}{5}\right) = \frac{1}{3}\left(\frac{189}{90}\right) = \frac{63}{90} = .70$$

An algebraic formula for this computation is

$$P = \frac{1}{K} \sum_{i=1}^{k} \left(C_i / T_i\right)$$

where

K = number of categories into which item responses fell

C_i = number of subjects in the i^{th} set of cluster scores who responded in the i^{th} category on the item

T_i = total number of subjects who responded in the i^{th} category on the item.

This probability measure was computed for each item in each cluster, and became the item weight in the final criterion scale. Criterion scales were defined as weighted sums of item scores and the scale definitions documented. At this point criterion scale scores were computed for facilities and residents and

matrices of scores generated. In addition, two correlation matrices, one among facility criteria and the other among resident criteria, were generated.

Scale definitions and scores were reviewed by the "panel of experts". A number of scales were eliminated since they were found to duplicate other scales. In addition, a few items were dropped from scales to make their content more homogeneous. Descriptive labels were attached to each remaining scale. New scale scores were computed for those criteria whose item content was altered during this final review process. The matrices of updated criterion scores were then prepared for the macro-level analysis.

Several of the instruments were adapted from previous studies in which scales of various kinds were developed by the original investigators. These include the Patient Rating Scale (Plutchik et al, 1970), parts of the Physical Status Report, (Katz et al, 1970 and Canter et al, 1961) and the Patient Interview (psychological tests) among the resident questionnaires. They also include, among facility questionnaires, the Environmental Assessment (Lieberman et al, 1969) and the Staff Questionnaires (Moos 1972). A number of "a priori" criterion scales were created in order to replicate as closely as possible these previously developed scales and and labeled Z01 thru Z18 and 701 thru 712 respectively. A number of these scales were utilized in the initial quality construct, are identifiable in the criterion scale definitions in previous documents (Report of May 21; Interim Report, II: 20-25, 29-31) by their labels, and were included in the pilot test phase of the project.

The outcome of the analysis described above was the set of criterion scales. The items incorporated in these scales were, in turn, the basis for design of new instruments.

Each criterion score is a weighted sum of normalized item scores. The item scores are normalized to prevent spurious weighting of items based on number of

response categories. Estimation of population means and variances on each item was deferred until the collection of the pilot test data.* The formula for scores on the j^{th} criterion, C_j, is

$$C_j = \frac{\sum_i W_i \left[5. \frac{I_i - \bar{I}_i}{S_i} + 15 \right]}{30 \sum_i W_i}$$

where

I_i = raw score on the i^{th} item in the scale

$\bar{I}_i$ = estimate of the population mean on the i^{th} item

S_i = estimate of the population standard deviation on the i^{th} item

W_i = weight of the i^{th} item in the scale

In this formula, normalized item scores are transformed from a scale with mean = 0 and variance = 1 to a scale with mean = 15 and standard deviation = 5. On this scale 99.73 per cent of scores will fall in the range 0.00 - 30.00 if the item scores are normally distributed. The purpose of this transformation is to preclude negative item scores. Finally, each criterion score is taken as a ratio to the maximum possible score on the criterion. The computation of the maximum possible score assumes the maximum item score is 30.00 based on the normalization and transformation already described. Thus, values of C_i will ordinarily vary between 0.00 and 1.00. This precludes spurious weighting of criteria in computation of subobjective scores and facilitates comparison of criterion scores.

The composition of the complete set of scales derived for the initial quality construct and the weights assigned to each item are documented in a previous report

---

* The pilot test estimates for the final scales are included in the Scoring Manual.

(Interim Report, II: 10-31). Analogous documentation in the Scoring Manual in this report includes only those scales which survived testing in the field and subsequent analysis of pilot test data discussed in Chapter 9(b).

Section (b): Instrument Design

Once criterion scales had been constructed and revised, they became the basis for construction of summary measures and matching scores, and for design of new survey instruments. These two tasks proceeded in parallel. The former is the subject of the Sections (c) and (d); the latter is described briefly here.

Instrument design overlapped somewhat with editing and revision of the scales. As rough drafts of the instruments, based on the pool of items used in scale construction, took shape, a few further deletions of items from scales and deletions of overlapping scales took place. Drafts were circulated among project staff and their comments led to extensive revisions.

The several sections of the new tools were developed from the item pool in somewhat different ways. Section I of the facility Survey, the Administrator's Report, is an essentiably straightforward revision of the initial Administrator's Report, with the additions of several items from other forms and of a few new items covering areas omitted from the initial data base but judged important enough to explore in the pilot test analysis. These include, for example, length of tenure of the administrator and owners. Similarly, Section II (Surveyor's Observations) combines materials from Slover's Environmental Assessment (Lieberman et al, 1969) and the Joint Commission accreditation survey. Formats were revised both to resolve ambiguities and problems unvovered in the initial data collection and to help the new form flow with the typical structure of the observation tour.

The material in Section III, an interview with an on-line staff member, under-

went the most extensive revision. Most of it was drawn from the interview section of Slover's Environmental Assessment which was a partially-structured interview involving mostly fixed question formats but a great deal of field coding by the data collector. The new form is a completely structured interview in which nearly all questions specify the response categories available to the respondent. Data obtained in this way will be far more reliable although, as always, nuances are lost in the translation from an unstructured to a structured format. In addition to providing increased reliability, the structured approach is more appropriate to interviewing the on-line staff, including both staff nurses and aides who will be informants in the quality survey, than Slover's instrument, which was geared toward supervisory and semi-professional informants.

One deliberate step in the construction of these three forms was the assignment of each item to the most appropriate source of information (observation, on-line staff, or administrator). This resulted in moving some items from one form to another as the drafting process went on. The fourth section of the facility survey, however, the Staff Survey, is a straightforward retention of those items from the COPES instrument (Moos, 1972), that were used in the scale construction. The COPES instrument (our Staff Questionnaire) is a paper and pencil test administered to aides and nurses. Since our field experience indicated that many nursing home aides have real difficulty reading the items (although they usually understand them when verbalized), we initially planned to incorporate these items into the Staff Interview rather than retain a written questionnaire as part of the final survey. Two difficulties prevented this. First, the number of items was too large to administer verbally in a repetitive fashion and they would have made the interview too long. Second, we decided to include in the quality construct several scales measuring consistency among staff, and this requires administering these items to a sample staff, rather than to one or two people.

Although less than half the length of the facility survey, the new patient review forms took much more than half as long to design. There were two important reasons for this. First, the statistical analysis uncovered larger deficiencies in the resident-level base data than in the facility base data. Specifically, a high percentage of the items measuring aspects of medical care, including diagnoses, treatments, symptoms and the like, did not have enough variance to be useful in the scale construction. This left noticeable areas of patient need uncovered by the final criterion scales. Instruments including only items necessary for scale score calculations would not provide this information.

Second, our initial data collection methods had been as unstructured as typical, state-of-the-art patient assessment procedures. Both the Shaugnessy et al (1968) and Jones (1973) patient review procedures discussed in the section on nursing assessment in Chapter 4(c) are examples. In general, nursing assessments are done following protocols that do not rigorously specify how information is obtained, even when they specify closed response categories into which it is coded. Our dissatisfaction with the state of the art in this regard led us to attempt to make a quantum leap beyond previous patient review protocols in degree of structure. As in the development of the facility survey, our goal is to maximize the reliability as well as the validity of the data generated.

The results of this effort are noticeable chiefly in the Staff Interview section of the review. This section incorporates items largely from the Physical Status Report, originally an unstructured interview, and Plutchik's Geriatric Rating Scale, originally a pencil and paper instrument (Plutchik et al, 1970). The new interview is completely structured, all questions being worded according to standard techniques of public opinion research. For example, the initial data base included the Northwestern University Disabilities Scales (NUDS) (Canter et al, 1961), consisting of six sets of response categories for coding the results of

unstructured observation and interview. Correlational analysis of the preliminary criterion scales indicated that the NUDS scales could by themselves do the work of a much larger set of items. The task then was to translate them into sets of structured interview items logically equivalent to the original response categories. In the process, elements of each definition peculiar to Parkinsonian patients were deleted. The calculation of NUDS scale scores from the pilot test instruments is documented in Exhibit 7.3.

With regard to the problem of content areas missing in the final criterion scales, the main issue was the usefulness of our patient review in the context of assessing need for care, in which some measure of medical status, need for medications and treatments, and the like, is essential. One such context is the review of patients supported by public funds done by state government agencies. It was decided to incorporate the patient review information collected by the State of Illinois, on the basis of which dollar amounts of reimbursement are set, into the patient review protocol to be used in the pilot tests.

The Illinois protocol [Form 184(2)] consists of 14 items covering self care ability, medication and treatment orders, and behavior. A number of points ranging from 0 to 8 is assigned for each item and a total number of points calculated. As with other existing patient assessment procedures, the review process is structured only by the content of the response categories corresponding to given numbers of points. In keeping with our ambition to specify the review process in detail, as discussed above, we incorporated each Illinois review item into one or more items in our forms spelling out exactly how the information is obtained. Much of it comes from the resident's chart and here the wording of items was relatively straightforward. For information not in the chart, structured questions were formulated as part of the Staff Interview section. In some cases, items already part of the instrument through inclusion in the criterion scales were modified slightly to allow calculation of Illinois point scores. In others, entirely

EXHIBIT 7.3

CALCULATION OF NORTHWESTERN DISABILITIES (NUDS) SCORES

NUDS Scale		Scoring From Pilot Test Instrument
A (Walking)	=	0 if #125 = 1 1 if #125 = 2 2 if #125 = 3 3 if #126 = 4 4 if #126 = 5 5 if #126 = 6 6 if #128 = 1 7 if #128 = 2 8 if #129 = 3 and if #130 = 1 9 if #129 = 3 and if #130 = 2 10 if #129 = 4
B (Dressing)	=	0.00 if #138 = 1 1.25 if #138 = 2 2.50 if #138 = 3 3.75 if #139 = 4 5.00 if #139 = 5 6.25 if #139 = 6 7.50 if #140 = 7 8.75 if #140 = 8 10.00 if #140 = 1
C (Hygiene)	=	0.00 if #132 = 1 1.25 if #132 = 2 2.50 if #132 = 3 3.75 if #133 = 4 5.00 if #133 = 5 6.25 if #133 = 6 7.50 if #134 = 7 and if #135 = 1 8.75 if #134 = 7 and if #135 = 2 10.00 if #134 = 8
D-1 (Eating)	=	0 if #142 = 1 1 if #142 = 2 2 if #142 = 3 3 if #143 = 4 4 if #143 = 5 5 if #143 = 6
D-2 (Feeding)	=	0 if #145 = 1 1 if #145 = 2 2 if #145 = 3 3 if #146 = 4 4 if #146 = 5 5 if #146 = 6

EXHIBIT 7.3 (continued)

NUDS Scale		Scoring From Pilot Test Instrument
E (Speech)	=	0.00 if #153 = 1 2.50 if #153 = 2 5.00 if #154 = 3 7.50 if #154 = 4 10.00 if #154 = 5

new material was written. Scoring of the 14 IDPH "point counts" from the pilot test instruments is documented in Exhibit 7.4. A 15th item, calling for the surveyor's judgment as to the resident's need for skilled-level nursing care, does not produce a fixed point score (but is used in determining placement by level of care); this item was not reproduced in our pilot test instruments.

A few additional new items were included to cover other matierial omitted in the scales. For example, a criterion scale to be called "physical competence--vision" (Criterion No. 901) was included in the pilot test analysis. It included pilot test items 75 and 156, each assigned a weight of 1.00.

The survey instruments that emerged from analysis of the initial data base and staff review and discussion are included in the Draft Surveyor's Manual in this report. Procedures for using them to collect hhe pilot test data are discussed in Chapter 8(b).

Section (c): Development of Summary Measures

The development of summary measures consisted of deriving a formula for combining criterion measures to evaluate more general characteristics of facilities and residents. While this process involved substantial use of professional judgment (the "panel of experts"), statistical analysis of relationships among criteria and of item-total associations also played a large role in grouping criteria and assigning weights.

At the criterion level the analysis was very similar to that at the item level. The one major exception is that the measure of association was the correlation coefficient, used because the criteria scores can be treated as continuous variables without any loss of statistical integrity.

The first step at this level was to compute means and variances and the correlation matrix for all of the criteria derived from each review instrument (resident and facility). Note that for each review instrument, all criteria were

EXHIBIT 7.4

CALCULATION OF IDPH SCORES

IDPH Item	Scoring From New Instrument
1 (Eating)	0 if #144 = 1 and if #115 ≠ 3 1 if #146 = 4 and if #115 ≠ 3 2 if #146 = 5 and if #115 ≠ 3 4 if #146 = 6 and if #115 ≠ 3 8 if #115 = 3
2 (Mobility)	0 if #123 = 1 or if #123 = 2 and #128 = 1 2 if #128 = 2 or if #130 = 1 3 if #129 = 4 or if #130 = 2
3 (Behavior & Mental Condition)	0 if #180 = 1 3 if #180 = 2 8 if #180 = 3
4 (Physical Rehab Needs)	0 if #99 = 1 and if #111 = 1 and if #119 = 1 and if #121 = 1 4 if (#121 = 2 and #111 = 2 and #119 = 2) and [if not (#98 = 2 or 3 and #99 = 2 and #122 = 2] 6 if #98 = 2 and if #99 = 2 and if #111 = 2 and if #119 = 2 and if #121 = 2 and if #122 = 2 10 if #98 = 3 and if #99 = 2 and if #111 = 2 and if #119 = 2 and if #121 = 2 and if #122 = 2
5 (Catheterization)	0 if #113 = 1 4 if #113 = 2 8 if #113 = 3
6 (Incontinence)	0 if #114 = 1 and if #157 = 1 or if #158 = 1 1 if #114 = 1 and if #157 = 2 or if #158 = 2 2 if #114 = 1 and if #157 = 3 or if #158 = 3 4 if #113 ≠ 3 and if #114 = 4 and if #120 = 2 6 if #113 ≠ 3 and if #157 = 4 or if #158 = 4 and if #120 = 1 8 if #113 ≠ 3 and if #114 = 2 or if #114 = 3 and if #120 = 3
7 (Douches, enemas)	0 if #112 = 1 4 if #112 = 2 5 if #112 = 3
8 (Diet)	0 if #115 = 1 3 if #115 = 2 or if #115 = 3

EXHIBIT 7.4 (continued)

IDPH Item	Scoring From New Instrument
9 (Medication)	0 if #101 = 1 or if #102 = 1 1 if #101 = 2 and if #102 = 2 3 if #101 = 3 and if #102 = 2
10 (Injections)	0 if #103 = 1 or if #104 = 1 2 if #103 = 2 and if #104 = 2 4 if #103 = 3 and if #104 = 2
11 (Intravenous fluids)	0 if #107 = 1 2 if #107 = 2 8 if #107 = 3
12 (Suctioning)	0 if #108 = 1 3 if #108 = 2 5 if #108 = 3 8 if #108 = 4
13 (Oxygen)	0 if #109 = 1 4 if #109 = 2 8 if #109 = 3
14 (Dressings)	0 if #110 = 1 and if #161 = 1 4 if #110 = 2 and if #161 = 2 6 if #110 = 3 and if #161 = 2 8 if #110 = 4 and if #161 = 2 and if #162 = 2

analyzed together; subsets were not formed to correspond to objectives or subobjectives. These correlation coefficients were then processed by the average distance clustering algorithm to group the criteria by subobjective. This was done to validate the hypothesized groupings of items into subobjective areas. These statistical groupings were then compared with the hypothesized groupings, the dissimilarities noted and explained, and a decision made as to the correct placement of the criterion in the hierarchy (multiple placements being acceptable in principle). Also, any extraneous criteria were identified and explained.

Within these subjectively correct groupings, unweighted subobjective scores (unweighted sum of criteria scores) were computed. Using these subobjective scores, criterion-total correlations were computed for each criterion within a subobjective grouping. These criterion-total correlations within the subjective groupings were presented to the "panel of experts" for use in assigning weights to the criteria. Using these criterion weights, subobjective scores were computed and a [subject x subobjective] score matrix created.

The means, variances and correlation matrix of the subobjective scores were computed. Because of the small number of subobjectives they were clustered using "eyeball" methods. Subobjective-total correlations were computed for the resulting clusters. The groupings were presented to the panel of experts for verification, along with the subobjective-total correlations, for use in assigning weights to the subobjectives. Using the subobjective weights, major objective scores and a [subject x major objective] matrix were computed. Each major objective is weighted equally in computing the overall index, so that the index is the simple mean of major objective scores.

An overall index of the resident need and an index of the facility quality is therefore derived from the major objective measures in a procedure identical to the one described above.

The results of this development are presented in Exhibits 7.5 and 7.6 which document, for the facility construct and patient construct respectively, the composition of the summary measures of the constructs and the weights assigned to the components of these measures. The formulae for computing the summary measures are:

$$S_k = \frac{\sum_j W_j C_j}{\sum_j W_j}$$

and

$$O_l = \frac{\sum_k W_k S_k}{\sum_k W_k}$$

where:

C_j = score on the j^{th} criterion scale (as calculated in the previous chapter)

S_k = score on the k^{th} subobjective

O_l = score on the l^{th} major objective

W_j = weight of the j^{th} criterion in a subobjective

W_k = weight of the k^{th} subobjective in an objective

These formulae take all scores as proportions of the maximum score possible on the measure, so that in principle they vary between 0.00 and 1.00. Each major objective is weighted equally in computing the overall index, so that the index is the simple mean of major objective and scores and thus the index also varies between 0 and 1.00.

Exhibit 7.7 shows a histogram of resident need index scores across all patients sampled in all facilities. The mean resident need index is .50 and the standard deviation in the sample is .084. The distribution of the analogous facility index measure is as follows (the mean quality index for the 9 homes is 0.5 and the standard deviation is 0.079):

Facility	Quality Index Score
4	.605
2	.560
3	.559
8	.541
7	.494
1	.467
5	.467
9	.446
6	.326

Note that all the measures in the hierarchy--criterion scales, subobjectives, objectives, and indices--are calculated as ratios to the maximum possible score so that all scores vary, in principle, between 0 and 1.00. The mean is always approximately .50 since item scores are normalized as part of the computation of criterion scores. In actual sample data extreme item scores (the maximum or minimum possible) do not result in criterion scores of 1.00 or 0 because, with a small number of response categories in an item, the highest response category is not set equal to 30, nor the lowest response category set equal to 0, in the normalization process. If the item scores were continuous variables, criterion scores approaching 1.00 or 0 would be possible. Since subobjective scores are weighted averages of criterion scores, they cannot fall outside the observed range of criterion scores. The same is true of major objective and index scores.

EXHIBIT 7.5

FACILITY SUBOBJECTIVE, OBJECTIVE, AND INDEX SCALES

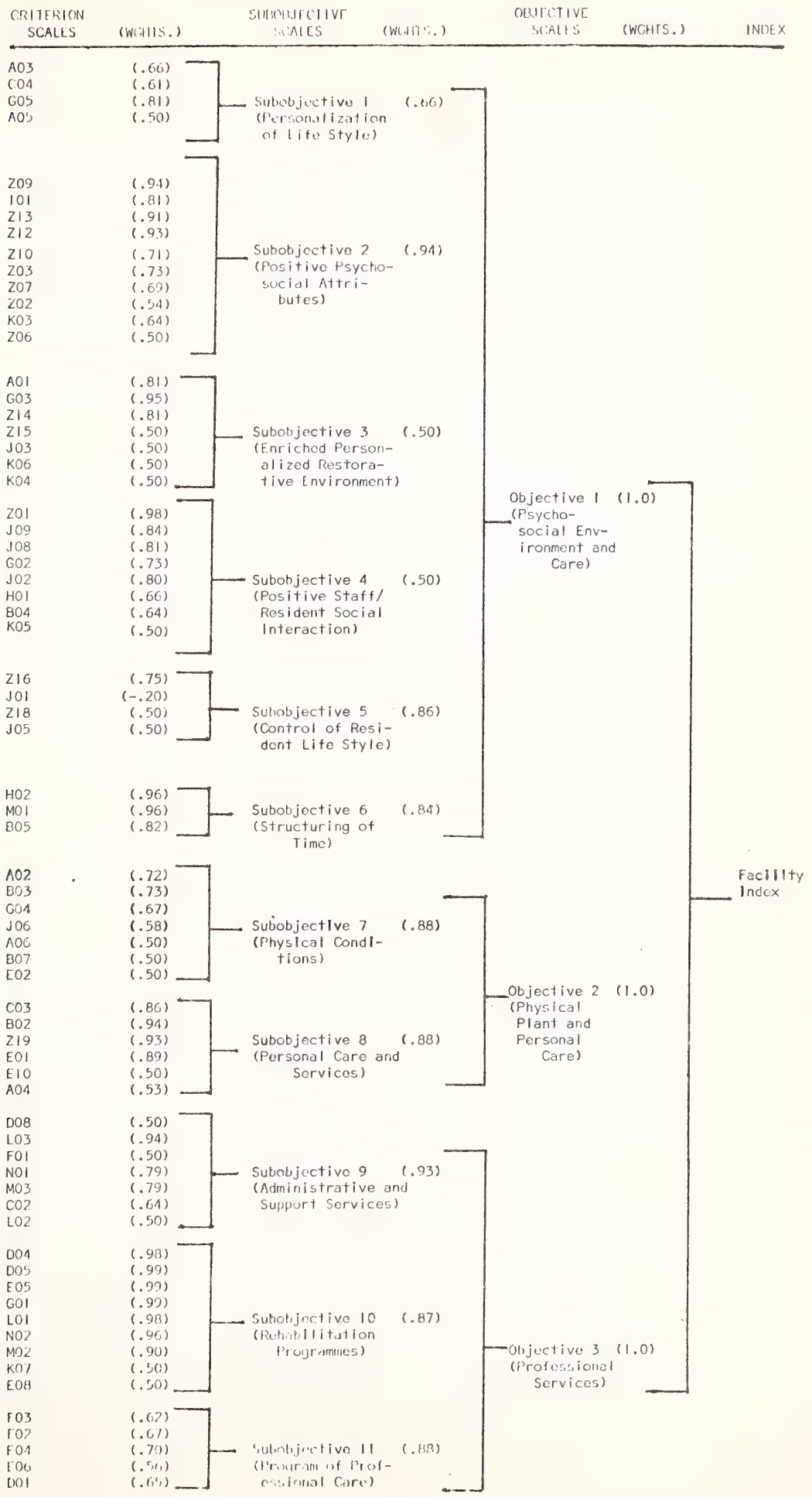


EXHIBIT 7.6

PATIENT SUBOBJECTIVE, OBJECTIVE, AND INDEX SCALES

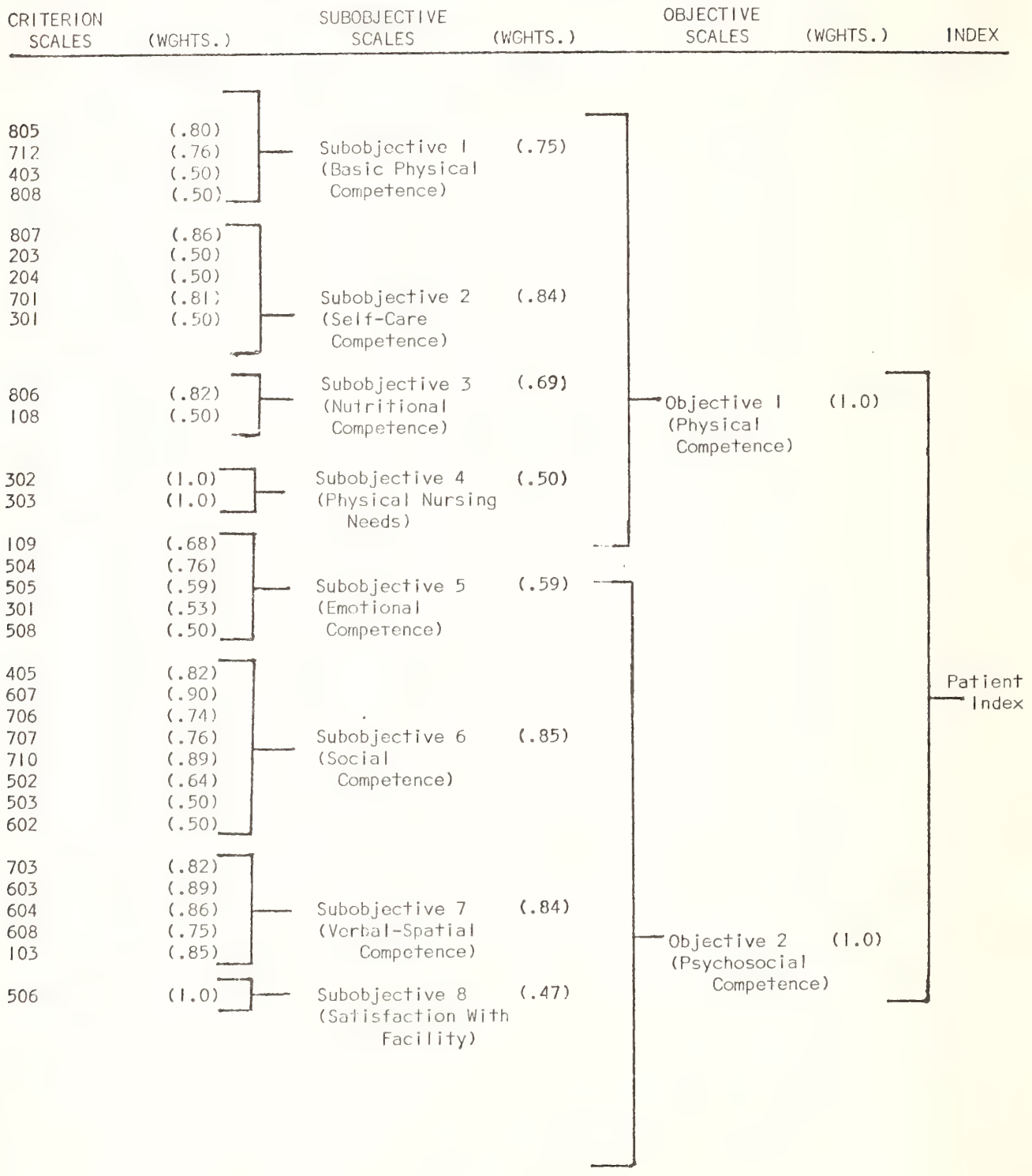
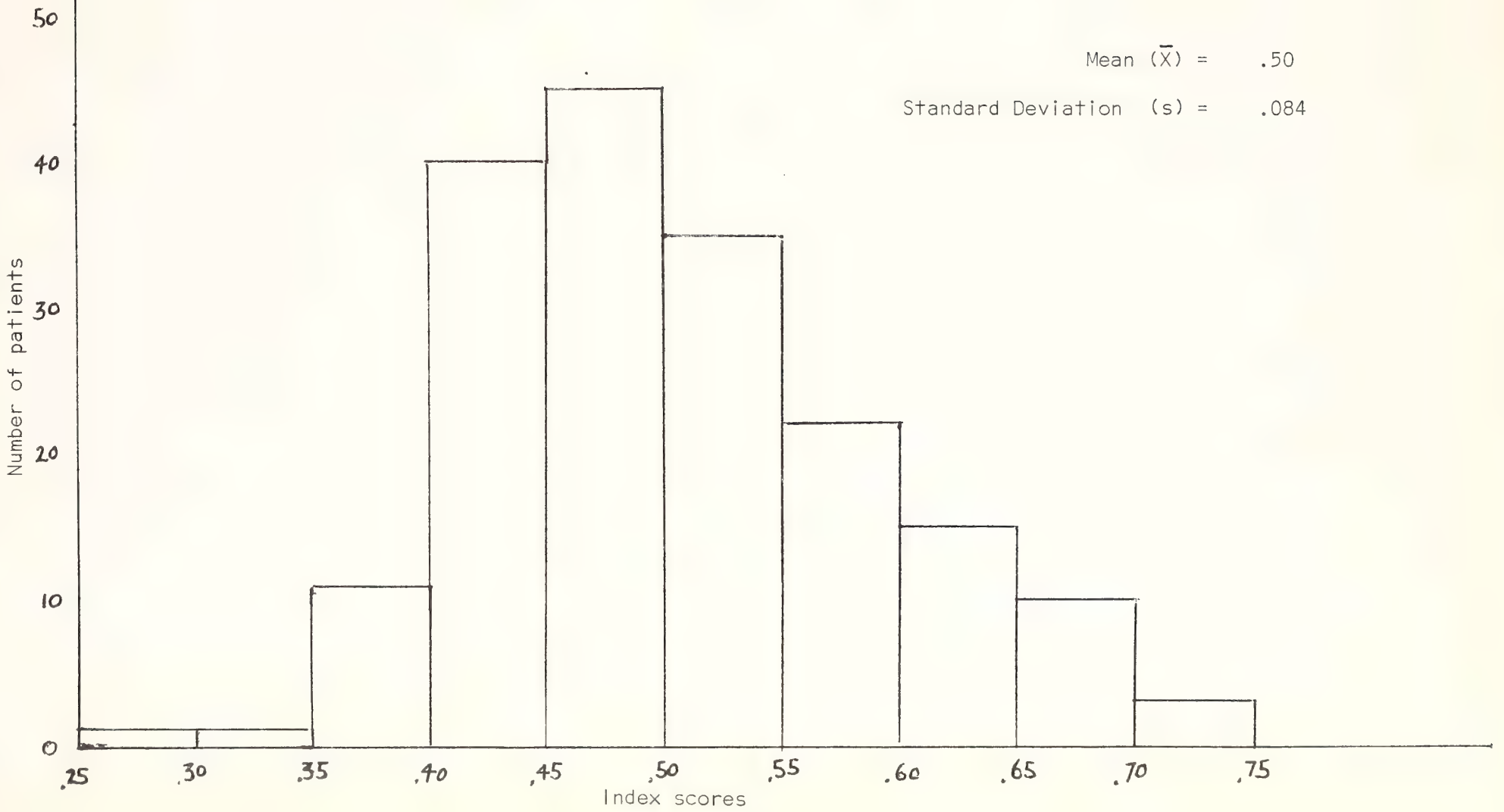


EXHIBIT 7.7

RESIDENT NEED INDEX



Section (d): Development of Matching Construct

Matching Scores

To determine whether and to what degree the needs of the residents were being met by the homes in which they resided, a measure of the appropriateness of this match was developed. This measure is designed to be a ratio of facility quality to patient need, so that the higher the value of this ratio the more appropriate the placement of the resident in a facility.

The first step in the development of the measure was to identify the environmental characteristics which relate closely to the satisfaction of resident needs. It was felt that a maximum amount of information would be available in these scores if this matching was done at the criterion level. The list of resident criteria was circulated among project staff, who were asked to identify, for each resident criterion, those facility criteria which potentially serve to satisfy this need. Each of these facility criteria were then weighted in relation to its primary, secondary or tertiary importance to meeting the need identified by the resident criterion.

Matching of facility criteria to two of the resident criterion scales was not attempted because their item content was too broad. These scales incorporated the Northwestern University Disability Scale (NUDS) and the Geriatric Rating Scale respectively.

For ten resident criteria, specifically those measuring psychosocial and psychiatric needs, two sets of facility criterion matches were compiled. The rationale for this was that the needs for care of patients with low scores on these criteria differ from the needs of patients with high scores not only in terms of amount of care, but type of care as well. One list of matches was composed of facility characteristics judged to best meet the needs of residents with high criterion scores (indicating low self-care ability or "high need"). The

other matching list is composed of facility characteristics judged to best meet the needs of residents with low criterion scores (indicating high self-care ability). Criterion scales so labeled are computed as 1.00 minus the original criterion score.

The "Definition of Matching Scores" in Volume II of the Interim Report presents the results of this judgmental process.

The formula for the matching score, the measure of the degree to which the need of a resident is being met by the facility in which he resides, was constructed to relate facility quality to patient need in the following manner:

$$\text{Matching Score} = \frac{\text{Proportion of maximum possible quality exhibited by the facility.}}{\text{Proportion of maximum possible patient need exhibited by the subject.}}$$

The computational formula derived for the marching score is:

$$M_j = \frac{\left[\dfrac{\sum_m W_m C_m}{\sum_m W_m}\right]}{C_j} = \frac{\sum_m W_m C_m}{C_j \sum_m W_m}$$

where:

M_j = matching score for the j^{th} resident criterion

C_m = score of the facility on the m^{th} facility criterion

W_m = weight of m^{th} facility criterion

C_j = resident's score on the j^{th} resident criterion

This formula converts the weights (primary importance = 3, secondary importance = 2, tertiary importance = 1) assigned to each facility criterion into percentages of the total of the weights. It would be equivalent to:

$$M_j = \frac{\sum_m W'_m C_m}{C_j}$$

where:

$$W'_m = \frac{W_m}{W_1 + W_2 + \ldots W_m + \ldots + W_n}$$

In this expression n = the number of facility criteria employed in matching resident criterion C_j. Both the numerator and denominator of the expression for M_j vary between 0.00 and 1.00, since the C_j and C_m are constructed to vary between 0.00 and 1.00 (see section on criteria definitions). Thus, the matching scores vary from 0.00 to a theoretical upper limit of infinity if a case should arise where the resident's need score approaches zero in the presence of non-zero facility quality scores. It should be emphasized that a matching score greater than 1.00 does not have any substantive interpretation. In particular it does not mean the resident is over-placed or getting more care than he needs.

For each resident criterion, the distribution of the matching score over all the patients in our sample was computed and a "cutoff score" was determined. These cutoff points are distribution-dependent parameters to be computed from estimates of the population distributions of the matching scores.* The cutoff score for a resident criterion is defined as the mean matching score, minus one standard deviation. A resident whose matching score on a criterion is less than the cutoff point is said not to have the need measured by this criterion met by the facility. A resident whose matching score is equal to or greater than the cutoff point is said to have the specific need met at the level established by the distribution-dependent selection of the cutoff point.

---

*Estimates based on the pilot test data, for the revised scales resulting from analysis of that data, are included in the Scoring Manual.

Exhibit 7.8 shows the distribution of matching scores across all residents in all facilities on one criterion. The example used is criterion 503, titled "activity level." Indicated on the histogram are the mean matching score (1.142) and the standard deviation (.396). The cutoff point is 1.142 - .396 = .746. The shaded area of this histogram represents residents whose needs are not met by their present facilities, as determined by this distribution-dependent method.

The meaning of the cutoff point in relation to resident need and the quality of a facility's resources is further clarified in Exhibit 7.9. The graph is a representation for a matching score with a cutoff point of 0.8. The x-axis is the resident criterion score and the y-axis is the weighted sum of facility criteria that relate to this resident need.

The interpretation of the graph is relatively straightforward. A resident is classified as being undermatched in a given facility if the combination (x,y) of patient need and facility resource falls in the shaded region on the graph. The shaded region on the graph represents the set of points such that y divided by x, (the matching score) is less than 0.8 (the cutoff point). For example, a resident with a score on the resident criterion in question of 0.7 would be undermatched in any facility with a resource score of less than 0.56. Whether a patient is undermatched on any specific need is a function of both the patient's condition and the quality of the environment provided by a facility. In placing a patient with this level of need an attempt would be made to find a facility with a resource score of less than 0.56. Whether a patient is undermatched on any specific need is a function of both the patient's condition and the quality of the environment provided by a facility. In placing a patient with this level of need an attempt would be made to find a facility with a resource score of at least 0.56, whereas for a resident with a lower need score a lesser environment would be acceptable.

EXHIBIT 7.8

DISTRIBUTION OF MATCHING SCORES

FOR "ACTIVITY LEVEL" (Resident Criterion 503)

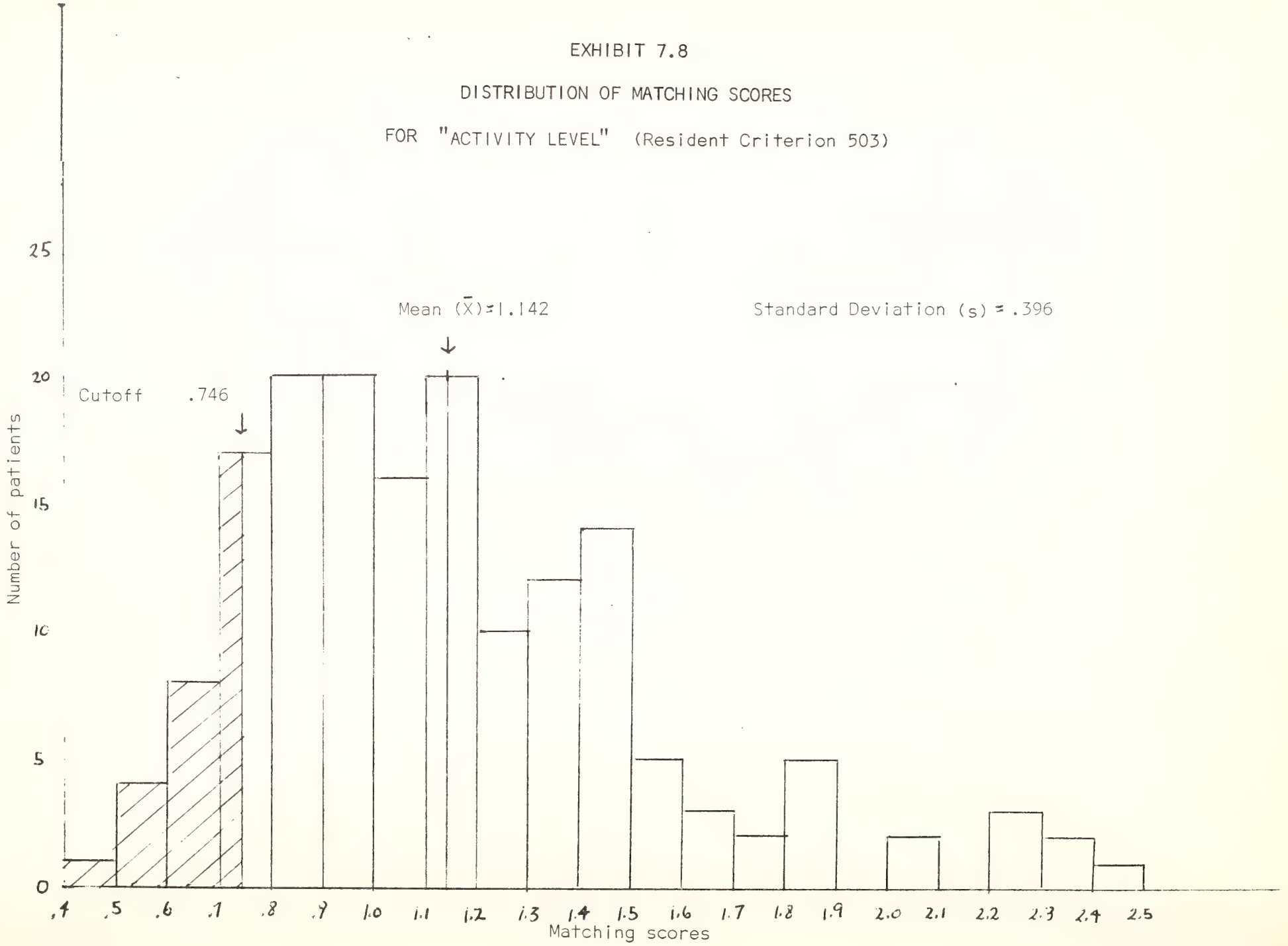
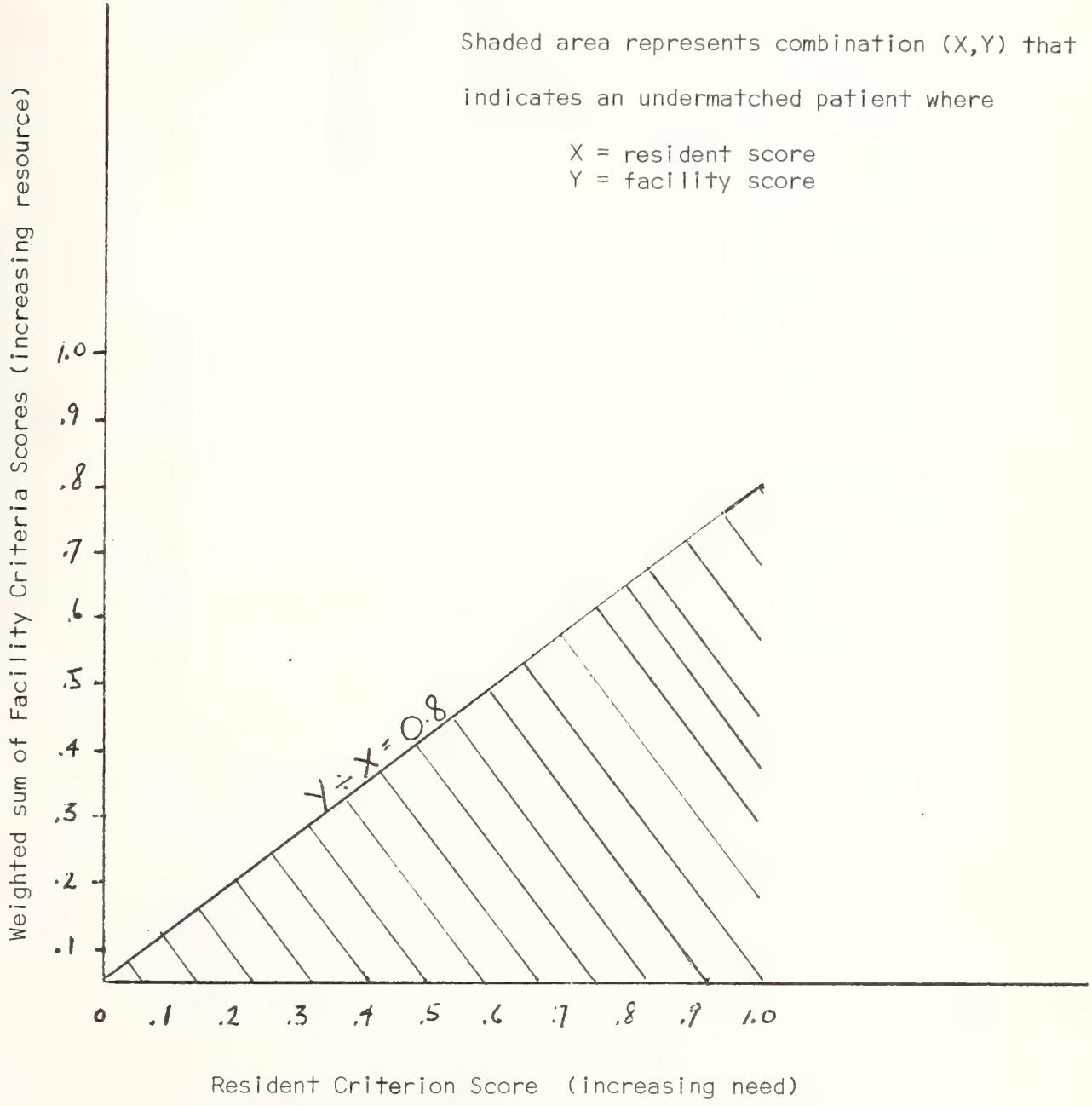


EXHIBIT 7.9

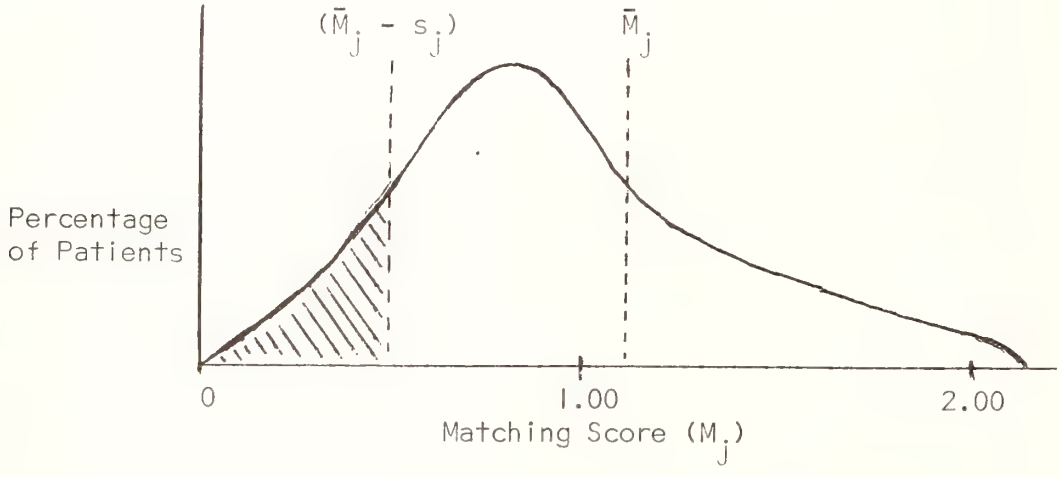
APPLICATION OF A CUT-OFF POINT
TO A MATCHING SCORE



Satisfaction Scores

From the matching scores for all the residents reviewed in the course of a quality evaluation survey, a set of satisfaction indices or scores are computed for the facility. For each need criterion, the facility's satisfaction index is the proportion of its residents sampled whose matching scores on the resident criterion in question are equal to or greater than the cutoff score. Cutoff points will be constant across facilities, but the satisfaction indices will vary dependent on the quality of the environment and the aggregate level of need exhibited by the census.

The diagram below shows a hypothethical distribution of the matching scores for resident criterion C of patients within a single long-term facility. In this diagram $\bar{M}_j$ indicates the population mean (not the mean in the facility) of the matching scores for resident criterion C_j. The point $(\bar{M}_j - s_j)$ indicates the cutoff score.



The shaded area represents the percentage of patients in the facility whose need is said to be unmet. The unshaded area represents the percentage of the facility's residents whose need is said to be met; this percentage is taken as the facility's satisfaction index for this resident criterion. The larger the number of patients in a home falling in the lower tail of the distribution, the more deficient a home is judged to be in meeting the needs of its residents.

An overall satisfaction index is also computed as the simple average of the need-specific satisfaction indices for the facility in question. For example, suppose the patient review consists of seven criteria with seven corresponding matching scores. Suppose further that in facility F satisfaction indices (percentage of residents whose matching scores exceed the cutoff point) are calculated and found to be the following: .85, .61, .70, .93, .82, .76, .59. The sum of these indices is 5.66 and the mean is 5.26 7 = .75. This is the overall satisfaction index.

This overall index is roughly interpretable as the proportion of the needs of the residents in the facility that are met at a level represented by the choice of cutoff scores (one standard deviation below the population mean). In conjunction with the facility index discussed above in the section on summary measures, it is used as a general measure of quality of life and care in the facility. It comprehensively incorporates information about each need and the facility characteristics relevant to meeting this need (although at a very general level) into a descriptive measure of each home. The distributions of criterion-specific matching scores provide information about the degree to which individual needs are being met by the facility and in this way allow for identifying areas of deficiency in the facility environment through the satisfaction indices for each need. Thus, the overall satisfaction index, when used in conjunction with the satisfaction indices for each need, was intended to describe the quality of life as we have defined it.

CHAPTER EIGHT

PILOT TEST DATA COLLECTION

Section (a): Sample Selection and Orientation

In the course of analysis of the initial data base and development of the quality construct, it became clear that we needed to deal with the issue of whether our instruments will work in intermediate and sheltered care facilities, as well as in skilled nursing homes. All 9 facilities in the sample for the initial data base are licensed at the skilled level, although two also had sheltered beds and one had intermediate beds (see Exhibit 6.3). Since only about 20 to 25 per cent of Illinois beds are licensed at the skilled level, these 9 facilities would, by themselves, overrepresent skilled beds in a sample of 20 homes. We decided, therefore, to focus on intermediate and sheltered facilities in expanding the sample from 9 to 20 homes for the pilot test. Two considerations were at work in this decision.

First, some specific items used in the criterion scales and survey instruments relate to indicators which vary with licensed level of care. These include staffing levels, requirements for a director of nursing, equipment, and the like. Other indicators do not (or should not) vary with level of care. These include staff attitudes and other psychosocial variables. We would expect that, in an unbiased sample of homes, specifiable criterion scores will vary with level of care and others will not--unless, of course, sheltered homes are less able to meet psychosocial needs than skilled facilities. We planned to test for these differences in a preliminary way using the pilot test data.

Second, there was no good reason to worry about the overrepresentation of

skilled beds in the expanded sample. Our original rationale for focusing attention on skilled homes, as outlined in Chapter 6(b) on sample selection, still held.

Our selection process began with contacts between project staff and representatives of the four major provider associations in Illinois. Names of 21 possible facilities were obtained from three of these groups and telephone contacts initiated with their administrators. These contacts were followed up with an orientation letter inviting them to participate. A number of additional names were added as we proceeded through the selection process, which was essentially similar to that described in Chapter 6(b), except that personal visits were not made prior to the final selection. The criteria were very much the same; an effort was made to approximate the population on a number of structural variables as well as to pick facilities located so as to minimize travel.

During the selection process letters were sent to the administrators of the nine initial data base facilities inviting them to participate in the pilot tests.

Characteristics of the resulting sample are indicated in Exhibit 8.1. All 9 facilities represented in the initial data base agreed to participate in the pilot tests. Of the 11 new facilities, 2 consist entirely or predominantly of skilled beds and 2 are about half skilled. Five are predominantly intermediate and 2 predominantly sheltered. Between initial data collection and pilot testing, facility no. 8 opened approximately 50 new sheltered beds. Facility no. 2, which during the initial data collection stated it was accredited by JCAH, reported during the pilot test it has never been surveyed by JCAH. The total sample includes 16 proprietary, 4 voluntary and 2 county homes.

EXHIBIT 8.1

PILOT TEST SAMPLE CHARACTERISTICS

Facility ID	Location	Ownership	Approximate Beds			Certifications		Staff ratio*	% of Residents**	
			Skilled	Inter-mediate	Sheltered	Medicare	JCAH		on Public Aid	Nonwhite
1	Suburban	Proprietary	110			Y	Y	.54	40%	3%
2	Suburban	Voluntary	180		120	Y		.78	12	0
3	Suburban	Public	200	90		Y	Y	1.11	76	0.3
4	Small Town/Rural	Voluntary	50		70	Y	Y	.94	23	0
5	Urban	Proprietary	310					.49	91	12
6	Urban	Proprietary	240					.48	95	n.a.
7	Urban	Proprietary	190			Y		.47	89	n.a.
8	Small Town/Rural	Proprietary	70		50	Y		.58	41	0
9	Suburban	Proprietary	200			Y		.56	71	1
10	Suburban	Proprietary	90			Y		.71	31	5
11	Small Town/Rural	Public		80				.72	69	0
12	Small Town/Rural	Voluntary		50	100			.70	14	0
13	Small Town/Rural	Voluntary		30	50			.77	16	0
14	Small Town/Rural	Proprietary		200				.31	99	16
15	Suburban	Proprietary	70	60		Y		.57	76	4
16	Small Town/Rural	Proprietary		50				.86	46	0
17	Urban	Proprietary	30	40				.67	84	50
18	Urban	Proprietary		60				.52	98	50
19	Suburban	Proprietary	20	180		Y	Y	.87	0	0
20	Suburban	Proprietary	80	10		n.a.	n.a.	.11	84	5

*Ratio of approximate total employees, including part-time, to bed size, as reported by administrator 9/73.

**Approximate, as reported by administrator 9/73.

Five are in urban locations, 8 are suburban, and 7 are in rural areas or small towns. Ten were certified by Medicare as ECFs, and 4 accredited by the Joint Commission.

Orientation of the facilities prior to pilot test surveys consisted of (1) a telephone briefing of the administrator followed by a detailed memorandum, and (2) distribution of a leaflet to all facility staff. The memorandum and leaflet are reproduced as Appendices B-3 and B-4 respectively. Orientation was much less thorough than that done prior to initial data collection because the nature of our work in the facility was quite different--and much less an imposition. To collect the initial data, various teams worked in each facility at various times using various protocols and procedures. To complete each pilot test survey, two data collectors spent one day each in the facility.

Section (b): Data Collection and Surveyor Debriefing

Pilot test surveys of the 20 facilities in the sample were carried out by four Registered Nurse surveyors. Nurses were employed in this role in order to anticipate as nearly as possible the conditions under which future implementations of this system might occur. State regulatory agencies generally use registered nurses in their survey programs, often in combination with other, less qualified, personnel. In Illinois, for example, licensing surveys are carried out by a nurse and a Geriatric Home Inspector (GHI). Moreover, the nurse has additional responsibilities for conducting patient reviews during the survey. As a result, our system design effort has been oriented from the beginning toward the use of the nurse surveyor.

Specifically, portions of the patient review assume nursing skills in observation, assessment, and the reading of medical records. In addition,

the extensive use of structured interview and observation in the survey instruments, and consequent emphasis on interaction with staff and residents, placed a premium of understanding, tact, and ability to establish rapport working in an institutional setting--characteristics nurses could be expected to share. We felt that in the future, the survey procedures might be taught to non-nursing personnel, but for the present they wished to restrict experimental use of the tools to nurse surveyors. Since present state inspectors are typically not all nurses, this means that implementation of the system in a regulatory context might well involve some upgrading as well as reorientation of inspection staff.

The project staff thought that the use of staff with experience in state agencies, or comparable personnel, posed some problems. The most serious is the need to overcome the mental set of nurses trained and experienced in traditional inspection methods. Specifically we felt that the orientation had to focus on the difference between process and structure and on the techniques of process evaluation. Another problem was dealing with the need of the nurse-surveyors to perform nursing interventions or in their words "do something about it" rather than remain objective, non-participating, friendly observers. We did find the theme of being a nurse and not being permitted to act like a nurse reoccured throughout the orientation sessions, and had to be dealt with on many levels with the assistance of the consulting clinical psychologist. Such a strong response to intervene may or may not be true of state inspection personnel. We were unable to substantiate to our satisfaction these two conjectures as we were unable to arrange for any state surveyors to participate in the pilot testing.

Early in the summer of 1973 discussions were held with the Illinois

Department of Public Health (IDPH) concerning availability of present or former state inspection personnel for participation in the pilot testing. IDPH did plan to "loan" one of its surveyors to the project for the 10 week orientation and data collection period. This arrangement did not occur as the individual assigned had made other previous commitments for this time and would not be available for a considerable amount of time during the orientation period. The project staff felt that the missing segments of the orientation program could not be made up through homework and/or readings. Thus our hope to implement the survey system using a person familiar with the state inspection system was not fulfilled.

Four field staff were recruited from among nurses in the Chicago area. One had extensive experience in public opinion interviewing, two in long-term care nursing and administration, and the third an excellent background in public health nursing.

Three weeks were allowed for the orientation of the four surveyors. This was somewhat longer than we expect training to take once experience with the system exists upon which to build. The syllabus for the three week session was in some respects quite experimental. The pilot test training and field work were used to develop a two week course outline to be used for future surveyor training.

The general emphasis of the orientation was on modification of attitudes toward inspection and assessment and on the idea of process evaluation. The main topics of the orientation were:

(1) overview of the project

(2) the aging process

(3) scheduled observation of psychosocial environment

(4) scheduled observation and assessment of residents

(5) psychological assessment

(6) structured survey interviewing techniques

Some specific issues included were a review of the social and conceptual organization of physical space, random sampling from census lists, review of Illinois regulations and standards referred to in the instruments, an overview of restorative and rehabilitative care, methods of minimizing disruption of the facility, administration and scoring of the psychological tests in the patient review. The orientation included extensive practice in two facilities not part of the sample with which project staff have close contacts. This culminated in two complete dry runs in these facilities.

Overall direction of the training was the responsibility of the field coordinator. She was assisted by outside consultants with expertise in survey interviewing (from the National Opinion Research Center) and in the environmental observation techniques. In addition, the training in administration of the psychological tests was done in consultation with personnel from the RPSL Department of Psychology experienced in training non-psychologists to administer selected tests.

The question whether a clinical psychologist should participate directly in surveyor training was addressed by the project's psychology consultant and a decision made that the training in psychological testing procedures can be done effectively by a person who has himself been well-trained in the procedures. The particular tests used in the Patient Review instrument were selected with a view toward ease of administration and do not pose technical problems beyond those associated with the usual mechanisms for controlling interviewer bias. The availability of a psychologist on a consulting basis, however, was

found to be an invaluable asset to the instructor.

The final week of surveyors training was used as the initial step in the pilot test. The patient review instrument was tested for reliability, thus completing Step A of the pilot test design (Interim Report, I: 156) allowing the field staff an extra week to further develop their interviewing and testing techniques.

The pilot test phase of the project generated data for the following analyses:

(1) feasibility of survey procedures

(2) inter-observer reliability of individual items

(3) homogeneity (unidimensionality) of criterion scales

(4) sampling variability of the scale scores

(5) modification of weights at each level of the hierarchy

(6) scaling of new items and placement in the construct

Data for these analyses was collected in four steps. Step A, which generated data on patient review item reliability, was part of the last week of survey training. Steps B and C together constituted the first complete pilot test, as described below. Step D was a straightforward administration of the survey in all 20 facilities.

In Step A (the last week of surveyor training/first week of pilot testing) the reliability of the patient review instrument was tested by repeated collection of this data on a small sample of patients. Because the psychological tests have been well validated in the past, it was felt that their reliability could be assumed <u>a priori</u> and did not need to be tested. Rather, these psychological tests were used as a means of observing patients for collecting the remaining data in the patient review instrument. During the last week of the

surveyor training, a sample of six patients in one of the training facilities were selected. This sample was stratified by patient condition to maximize the variance in the observations. Using one of the psychological tests as a means of observing the patient, each of our four data collectors administered the remaining items (#60-194) in the instrument to each of the six patients on each of four days. Each surveyor interviewed a different staff informant. Each patient was given four different psychological tests. Thus we were able to obtain four different observations for each of the other items for each patient.

In Step B (the second week of pilot testing) the reliability of the facility review items were tested in a manner similar to that used for the patient items. As a first phase of the data collection, five representative facilities were selected from our sample of twenty homes for this experiment. Using the present data collection design, each team of two data collectors administered the instruments in each of the five homes. As the present design required each member of a team to administer all of Sections II and III of the facility review instrument in each home, this administration yielded four observations of each home for each facility item. Section I, the Administrator's Report, was filled out only once; item reliability of these items was not tested.

Following the two surveys of each of this subsample of five homes, the remaining 15 homes were surveyed in the regular manner. This was Step C. At its conculsion, a complete set of data had been obtained in each home, plus a second set in five of the homes for the reliability analysis.

The field staff were debriefed to determine the practicality of the proposed data collection design. It was at their suggestion that a format be

developed for the survey day. They also devised the technique of leading the conversations that invariably accompanied the initial tours to include specific topics about which they needed information or a good indication of the methods used by the agency to solve certain problems. All four pilot test field staff found it difficult to interview residents during the afternoons and easier to make appointments for the various staff interviews after lunch. The field staff's notes and commentaries regarding the difficulties encountered working with specific items and questions in the pilot test instruments were recorded. Moreover, all of their suggestions shared during the interim debriefing sessions for obtaining maximum amounts of data in a minimum amount of time were incorporated into the question specifications in the Draft Surveyor's Manual.

In Step D (the second pilot test) a complete second pass was made through the 20 facilities. The full Administrator's Report (Section I of the Facility Survey) was omitted from this second pilot test since the data was almost entirely structural and had been collected only three or four weeks earlier. A shortened form of the Administraotr's Report (see Appendix C) was used by the field staff team. This provided a format for obtaining data, such as the census, which probably had changed during the three to four weeks between pilot tests. The form was filled out by the administrator while the survey was in progress.

Residents reviewed during the first survey were excluded from the sample for the second. Although time constraints made it impossible to incorporate changes in the forms resulting from the reliability analysis of data from Steps A and B, a change in the survey procedures based on field experience in Steps B and C was introduced at this point. This change was to interview only two residents rather than four during the second pilot test. For the

purpose of data analysis, however, the scores of the eight patient reviews obtained during the first pilot test were aggregated with the scores of the four obtained during the second survey. Thus the resident sample for the second pilot test consisted of a total of twelve randomly selected residents rather than eight from each of the twenty facilities surveyed.

Following the completion of the second pilot test the field staff was again debriefed and their comments, suggestions, and problems tape recorded. It was their concern with the problem of the development of initial impression usually created by odors that suggested to us that the facility survey be done late in the day to avoid a halo effect while ranking. The field staff also suggested rewordings for questions which did not substantially change what was being asked but did improve the flow of the tool. All information of this nature should be taken into account in future refinements of the survey protocols, and was included in the development of the specifications in the Draft Surveyor's Manual.

As a part of the debriefing the field staff was asked to rank-order the twenty homes from first (best) to twentieth (worst). A comparison of these ranks with each other was then made using Kendall's Coefficient of Concordance (W), based on the 17 facilities visited by all four surveyors. The value of 0.18 obtained was not significant. This indicated that there was not a significant degree of agreement among the four surveyors about the ranking of the twenty facilities. The rankings were averaged and the table below indicates the average ranking for each facility. The higher the number in the chart, the lower the average rank.

Average Ranking of Pilot Test Sample

Home	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Average Rank	13.80	5.94	4.75	2.58	17.69	18.45	10.92	4.66	11.70	18.21
Home	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
	4.57	5.21	7.01	8.46	16.63	5.70	12.98	17.09	8.04	15.52

In addition to construction of this overall subjective ranking, comments made by the surveyors on their Observations forms were compiled and are reproduced (with editing to eliminate identifying characteristics of facilities) as Appendix D. For the first 9 facilities these comments can be compared directly with the observations of the initial data base field staff (Interim Report, I, Appendix A).

An analysis of time data included in the completed questionnaires was carried out to provide some insight into time requirements for the data collection. This analysis is reported in Exhibits 8.2 (Facility Survey) and 8.3 (Patient Review), and includes data on surveys of four facilities not in the sample which were done as part of surveyor training. These additional surveys are not referred to elsewhere in this report.

Facility administrators reported taking an average of almost 2 hours to complete the full Administrator's Report in Steps B and C--almost twice as long as anticipated by project staff. The large standard deviation of the times (55 minutes) makes this estimate somewhat suspect. The estimates of the time required to complete the Surveyor's Observations section are even more suspect, because each surveyor used different criteria for determining how much time she

EXHIBIT 8.2

TIMES REQUIRED TO PERFORM FACILITY SURVEY*
(in minutes)

SECTION	SURVEYOR ID	MEAN	S.D.	N	NO INFORMATION	TOTAL NO. COMPLETED FORMS
I. Administrator's Report	-	118	55	18	6	24
II. Surveyor's Observations***	1	87	16	5	19	24
	2	119	58	24	1	25
	3	114	31	21	3	24
	4	188	48	13	9	22
	5	-	-	-	2	2
	Total	128	53	63	34	97**
III. Staff Interview	1	30	10	23	2	25
	2	23	6	21	4	25
	3	22	5	23	1	24
	4	25	7	20	2	22
	5	28	11	2	-	2
	Total	26	8	89	9	98**

* Includes surveys of 4 facilities not part of the sample, done for surveyor training purposes.

** Totals differ because of one surveyor's absence for one facility; the other surveyor did two staff interviews in that facility.

*** Data unreliable because surveyors differed in the extent to which they included observation as well as recording time in their estimates.

EXHIBIT 8.3

TIMES REQUIRED TO PERFORM PATIENT REVIEWS*
(in minutes)

SECTION	SURVEYOR	MEAN	S.D.	N	NO INFORMATION	TOTAL NO. COMPLETED
I Resident Interview	1	25.29	11.38	17	1	18
	2	23.95	5.16	19	0	19
	3	21.17	7.52	18	0	18
	4	27.84	9.23	19	0	19
	5	35.00	-	1	0	1
	Total	24.73	8.74	74	1	75
II. Medical Record Information	1	11.39	5.37	18	0	18
	2	14.21	8.04	19	0	19
	3	13.33	3.96	18	0	18
	4	11.89	5.21	19	0	19
	5	10.00	-	1	0	1
	Total	12.68	5.82	75	0	75
III. Staff Interview	1	14.72	4.69	18	0	18
	2	15.61	13.09	18	1	19
	3	14.78	9.81	18	0	18
	4	11.00	3.04	19	0	19
	5	20.00	-	1	0	1
	Total	14.07	8.57	74	1	75

* Based on a 24 per cent random sample drawn from the total of 309 Patient Reviews completed during the pilot tests and related surveyor training.

spent on this part of the data collection, which includes an initial tour time for recording, and time to return to specific areas to look for additional data. The estimate of 26 minutes per Staff Interview (Section III of the survey) is probably quite reliable.

Time estimates for the Patient Review instruments were computed from a random sample of all available completed Patient Reviews, in order to minimize the amount of hand tabulation required. A sample of 75 cases was drawn, or 24 per cent of the total of 309. The data are presented in Exhibit 8.3 and can be interpreted as unbiased estimates, although the standard deviations for the Medical Records Information and Staff Interview sections are large relative to the corresponding means. By summing the means for the three sections, we can estimate that the Patient Review procedure takes an average of 52 minutes to perform--very close to our initial expectations.

Section (c): Facility Debriefing

Immediately following completion of the second pilot test, a form letter was sent to the administrators of the twenty facilities asking them for feedback on the survey procedures (reproduced as Appendix E-1). Eleven responded to our request for their impressions. The specific questions, and all responses to each, are documented in the following three pages. On completion of the data analysis and revision of the quality construct reported in Chapter 9, a Profile Report was prepared on each facility and sent to its Administrator with explanatory materials. This packet is reproduced as Appendix E-2. Enclosure 2 of the packet, not included in the Appendix, was the Facility Profile Report. All twenty of these are included in Appendix F.

1. What particular difficulties did you have obtaining information to fill out the Administrator's Report mailed to you before our first survey?

"The square footage of the facility was impossible to figure."

"Obtaining numbers of deaths and discharges for the one year period was very time consuming and difficult due to the way we are required to make out the census reports."

2. What questions or instructions on the Administrator's Report do you recall as being confusing or unclear?

"#32 - Does this include those ambulatory with wheelchairs, walkers, and quad canes, or are these in #31?"

"#1 & #4 - Did not take into account that some facilities have distinct parts for nursing care and therefore would have different levels of care."

"#20 - Did not take into account the various levels of care and the different requirements by State, Medicaid, Medicare for each level."

3. Do you feel that the Administrator's Report was unnecessarily difficult or time-consuming?

Ten administrators answered "no", and one answered "yes" commenting in Question #1 (above) on the "excessive amounts of time to complete the 'nursing personnel' section, Page 3."

4. How did the residents interviewed by the surveyors react to these interviews? (Please be specific and anecdotal if you can.)

"One lady told her sister that she was tested and how well she did. A few (one or two) people asked me (Act.Dir.) what it was for. They were a bit suspicious. Another lady took it all as nothing, she told me that the number part was very easy for her."

"No special reaction."

"Just another event. They are used to it and most enjoy it."

"We have received no comments from residents either negative or positive. It would appear, therefore, that the surveyors must have been well received."

"No particular reaction to my knowledge."

"The random selection process produced 75% deaf residents to be interviewed. Fantastic shouting match."

"The residents said nothing about their interviews. These interviews must have been accepted without any problems."

"They all seemed quite pleased with the additional attention."

"They enjoyed it very much."

"Some of the more confused were upset and unable to understand."

"Some were confused as to the reason of the interview. Others made no comment either way."

5. Were any of the surveyors' activities in your facility disruptive of your normal routines? If so, how? (Please try to be specific.)

"Very slightly - took staff off the floor for a few minutes. Really very minimal."

"When you interview more than one aide or R.N. from the same area! This creates staffing problems, especially when we are short staffed. Also, interviews almost have to be between 1 and 2 because of being so busy in the A.M.'s."

"No -- enjoyed having them here."

"Pre-scheduling avoided any disruptions."

"Not really - all normal routines were done just the same."

"No - surveyors were very considerate."

"No, however it would be better to interview employees after one o'clock. The morning is too busy with bathing, etc."

6. Taken as a whole, was the project's survey more disruptive than an IDPH or Chicago Board of Health annual licensure survey, less disruptive, or about the same?

Two administrators answered "more disruptive", one remarking "because of the interviews", while seven answered "less disruptive" and the remaining two "about the same."

7. What suggestions can you make to improve our survey procedures from the point of view of facility staff?

"As they gained more practice & expertise, they did a very efficient and non-disruptive survey."

"I feel the survey procedures were good. I think the best way to learn about a facility is to be in the facility for a day and observe what is being done for the patient. Many times this tells more than asking questions to staff."

8. How were the project's surveyors perceived by facility staff? (Generally favorable? Unfavorable? Like government inspectors? Different from government inspectors?)

"Generally favorable. Not as upsetting as inspectors. The surveyors were friendly and put the staff at ease. The staff was glad to be included."

"Favorable."

"Generally most favorable, especially the ones who were R.N.'s because they were understanding and sympathetic to nursing home problems."

"Generally favorable."

"Surveyors were accommodating, unlike some government inspectors."

"Generally favorable."

"The staff enjoyed the surveyors. They seemed to respond with no apprehension. I believe the staff accepted these people as equals without reserve."

"Like government inspectors - generally favorable."

"Generally favorable."

"Favorable. Much more objective and personable. Seemed very interested in what we were doing rather than what we were not doing. The positive approach was very refreshing."

9. Please make any other comments you feel are appropriate.

"This is one of the few surveys (or evaluation tools) where the human element is taken as part of the facility. The staff attitudes can make a good or bad facility so it is as important as the physical structure, staffing patterns and number of licenses. I hope you'll keep this in the survey."

"I think you should add the category after #42 'number of patients with decubiti'. You had it in your original survey. This question was and is a revelation! Also, you left out the number of patients in geriatric chairs, wheel chairs, use walkers or are restrained. I think these all give a revealing picture of a nursing home."

"The staff responded to the visit very favorably. It is my opinion that any constructive outside influence such as student nurses, surveys, etc. are always beneficial."

"The girls visiting our facility were well accepted."

"I would suggest that surveyors be familiar with long term care by actual experience on the job in a facility."

CHAPTER NINE

PILOT TEST ANALYSIS

Section (a): Item Reliability

The item reliability experiment was carried out to test the reliability of the individual items in the two survey instruments (patient and facility). An item is reliable if the score assigned to a subject on the item is independent of the surveyor making the assessment. This independence was tested using Kendall's Coefficient of Concordance (W), a measure of the degree to which different surveyors agree on the score assigned to a subject for a given item.

The reliability of the facility review instrument was tested by repeated review of five representative facilities selected from our sample of twenty homes (Step B of the data collection). Each team of two surveyors administered the instruments in each of the five homes. As the data collection design calls for each member of a team to administer all of Sections II and III of the facility review instrument in each home, this repeated review of the facilities provided four observations of each home for each facility item. Section I, the Administrator's Report was filled out only once; item reliability of these items was not tested. Each of the items from Sections II and III were statistically tested for reliability using Kendall's Coefficient of Concordance (W). The significance of the W value was tested at the $\alpha = 0.1$ level. Using this criterion, 42% of the facility items tested were found to be potentially unreliable. Each of these items was carefully examined to explain the causes of the lack of reliability and to determine modifications that could be made to solve the problem. The most significant cause of unreliable responses was found to be insufficient definition of the concept the item was attempting to measure. For example, consider "Food service personnel appear to practice hygienic food handling techniques". It became obvious

from a close examination of the surveyors responses to this item and from the debriefing sessions, that the surveyors were using different criteria for determining whether hygienic food handling techniques were being practiced. There were two possible solutions identified for this problem, either to define the criteria of importance more clearly in surveyor training sessions, or to structure the observation of this concept more completely through the use of a series of dichotomous items, each identifying a different indicator of the attribute being measured by the item. For this item it was decided to use surveyor training to eliminate the causes of unreliability; for others the items should be decomposed into a series of dichotomies. The decision of which procedure to follow was based upon the item's importance within the tool and the administrative cost of the choice. Another basic cause of unreliability was the subjectivity of the response categories. Wherever possible these should be reduced from the extremely ambiguous, excellent-good-fair-poor, to dichotomous yes-no response categories indicating only whether or not the attribute was present in the environment. Other items were inherently ambiguous and if the concept was deemed of importance, these were completely reworded to remove the ambiguity. Some of the items which were statistically unreliable were duplicates of other items and these were deleted from the instrument, as were some which seemed impossible to measure reliably in any fashion.

The large number of unreliable item discovered in sections II and III of the facility review instrument and the significance of the unreliability makes it extremely important that we retain our data collection design of having this information collected independently by each surveyor. This allows for scoring these items as the sum of the two surveyors observations which will tend to maximize the reliability of the score a facility receives on any of these items.

The reliability of the Patient Review instrument was tested by repeated collection of this data on a small sample of patients (Step A). Because the psychological

tests have been well validated in the past, it was felt that their reliability could be assumed a priori and need not be tested. Rather, these psychological tests were used as a means of observing patients for collecting the remaining data in the patient review instrument. During the last week of the surveyor training, a sample of six patients in the training facility were selected. This sample was stratified by patient condition to maximize the variance in the observations. Using a different psychological test as a means of observing the patient, each of our four data collectors administered the remaining items (item nos. #60-194) in the instrument to each of the six patients over a four day period. Each surveyor interviewed a different staff informant. Thus, we collected four different observations for each item for each patient. Each of these items was statistically tested for reliability using Kendall's Coefficient of Concordance (W). The significance of the "W" value was tested at the $\alpha = 0.1$ level. Using this criterion, 15 per cent of the items in the patient review instrument were revealed to be unreliable. These items were examined carefully to explain the apparent lack of reliability and to determine a course of action for each item. The causes of the unreliability were similar to those on the Facility Review Instrument and parallel solution procedures were employed.

Section (b): Criterion Scale Analysis

The criterion scales established for the initial quality construct were examined using cluster analysis to test the statistical homogeneity of each criterion. An average distance clustering algorithm using Somer's d (symmetric) as the measure of association was employed. This analysis was carried out on the data from the first pilot test (Steps B and C of the data collection).

This analysis identified many problems with the initial grouping of items into criteria. Many items were revealed to be statistically unrelated to the

scale in which they resided. These items were carefully examined by the "panel of experts" and a subjective decision was made based upon the content of the item to retain the item in the scale (ignoring the statistics), test it statistically in a conceptually more appropriate scale, or eliminate the item from the tool. For the pilot test analysis, the "panel of experts" included Drs. Davis and Buchanan, Ms. Feldman, and Mssrs. Hundert and Richard.

The clustering also provided an indication of the internal consistency of the scales. In many instances, two or more clusters, which were quite isolated, were revealed in a single criterion grouping. Consideration was given to identifying the attributes revealed by each cluster and the initial criterion grouping of items was broken up to measure these attributes more directly.

In a few instances a complete lack of statistical homogeneity was revealed in the criteria. These criteria were examined very carefully to determine the attribute we were attempting to measure and to explain the lack of cohesiveness. In some cases there was no reason to expect a high degree of statistical relationship between the items and, when the groupings were subjectively homogeneous, they were retained in the construct (ignoring the statistics). In some instances the lack of cohesiveness revealed baffling groupings of items for which no subjective interpretation of the underlying dimension could be established and these scales were discarded. Further clustering experiments were conducted to test these items in more appropriate scales.

The clustering analysis also revealed a design mistake on our part in attempting to statistically analyze items relating to staff attitudes (Facility Survey, Section IV). These items were administered to four staff people in a facility, which is a conceptually reasonable approach. However, in attempting to measure the statistical relationships between attitudes held by individuals, the unit of analysis should be the individual staff person. Unfortunately we neglected to take this

into account in our analysis design and used the summary measure reflecting the facility attribute in our experiments. As might be expected, the statistical relationships between the attitudes was obfuscated by the incorrect choice of the unit of analysis. Time constraints prohibited the restructuring of the experiments for these items and for this reason we are retaining the items in the instrument in the hope of analyzing them at a later phase in the development of the instrument. Also, the consistency of attitude scales, described in Chapter 7(a), were temporarily eliminated from the construct. If we are unable to define measures of attitudes, it is unrealistic to attempt to measure the consistency of these attitudes.

Despite this problem, the analysis of the homogeneity of the criteria through cluster analysis resulted in much more cohesive and thus more meaningful measures than were present in the initial constructs. These new criterion groupings are presented and explained in Chapter 2 and defined formally in the Scoring Manual.

The scaled measure of a criterion attribute is a weighted sum of the item responses. With the new composition of the criterion scales defined, the next step in the analysis was to determine weights for the items. The weights assigned to the items should be in relation to their importance in measuring the criterion attribute as defined by the scale. During a review of the technique used in deriving item weights for the initial quality construct [Chapter 7(a)] it became apparent that the weights assigned did not truly reflect an item's importance to the scale. Rather the weights seemed to be inversely proportional to the number of response categories of the item and thus reflected as much the item's structure as its importance to the criterion attribute. To correct for this a new weighting procedure was developed for the pilot test analysis.

Within a scale, the statistical association of the item's score with the scale score is the best measure of an item's importance to measuring the attri-

bute defined by the scale. The initial estimate of a criterion score is the unweighted sum of the item scores of the items comprising the scale. To prevent overweighting of items based solely on the number of response categories, the computation of the initial estimate is based upon standardized item scores. The initial estimates of the criterion scores are the simple aggregation of ordinal item scores. Although in form these estimates may appear to be interval measures (because of the standardization of the items), in substance they are merely ordinal measures. As both the item and unweighted criterion scores are both ordinal measures, it follows that the measure of association between the two should also be ordinal. For this reason Somer's d (assymetric) was chosen to measure the association between the item and the criterion attribute. To avoid the effects of auto-correlation, the initial estimates of the criterion scores were computed excluding the item for which the association is being measured.

In computing the Somer's d value, the interval nature of the "item-exclusive criterion score" (the simple sum of the items in the criterion grouping excluding the item of interest) presented a problem in that there are no distinct ordinal categories. It was decided that artificial categories should be created based upon the definition of ordinal association, which is that the item-exclusive criterion score is high when the item score is high, and low when the item exclusive criterion score is low. The item exclusive criterion score was assigned the same number of categories as were used by respondents to the item. Further, these assigned categories were defined by the number of respondents to each item category. If K_1 subjects responded in item category 1 and K_2 in item category 2, then the lowest K_1 item-exclusive criterion scores would define the first category and the next K_2 scores would define the second category, etc. This procedure was established to provide for an identical definition of high and low for both the item in question and the item-exclusive criterion score.

Using data collected during the second pilot test (Step D) inspections, Somer's d (asymmetric) was calculated between the items in each criterion grouping and the corresponding item-exclusive criterion score. In most cases these measures of association were used as the item weights. The exceptions to this were limited, but are worth noting. For some criteria it was not reasonable to assume statistical association between the items comprising the scale, and the association between the items and the criteria bore out this hypothesis. In these instances equal weights were assigned to the items. For the Patient Rating Scale (Plutchik's Geriatric Rating Scale), weights of one were assigned to all the items. For some of the facility scales based upon staff interaction with the surveyors, data from the first inspection was used as this inspection provided more meaningful associations among the items. This again indicates the problem of item reliability that exists in the survey instruments used for these collections. In other instances the statistical associations of an individual item in the scale with the scale score was quite low. In these cases, if the item could not be discarded for substantive reasons, estimates of an item weight were made based upon the weights of the other items in the same scale. Several procedures were used to estimate item weights in cases where a decision was made to override the statistics for substantive reasons and to not use the item-total associations. One was to assign a value based on subjective estimates of the importance of the item as an indicator of the scaled attribute. Another was to estimate the weight of one item from the statistical weights for other items in the same scale. A third, employed in a few instances, was to use item-total correlations from the first pilot test data rather than the second.

It should be emphasized, in this regard, that item weights are used to improve marginally the validity of the scale score--that is, its correlation with a conceptual attribute. Since the correlation between weighted and unweighted

totals of items is typically very high, this improvement in validity is often marginal. As a result of these considerations, there is nothing "sacred" about our use of the item-total correlation for the vast majority of the item weights. It should also be reemphasized that scales were validated and refined based on associations among items in one body of data (Steps B and C data); then item-total correlations were computed from a separate body of data (Step D) to be used as a basis for assigning weights.

The final composition of the criterion scales is documented in the tables in the Scoring Manual. Calculation of scores from these tables is described in the text of the Manual.

Section (c): Summary Measures and Matching Construct

Based upon the exhaustive revision of the criterion scales, new subobjectives and subobjective groupings of criteria were defined. After examining carefully the item composition of the new criteria, the "panel of experts" named the criteria and placed them into subobjective groupings. As a first attempt at assigning weights to the criteria within the subjectively defined groupings, criterion-total correlations were computed. The total score used for computing this measure of association between the criterion and the subobjective attribute were criterion-exclusive subobjective scores (unweighted sum of criterion scores excluding the criterion in question). These item-total correlations are shown in Exhibits 9.1 (facility) and 9.2 (resident). Where it was reasonable to do so, these correlations were used as weights for the criteria within each subobjective. In a few cases, although the attributes within a subobjective grouping were conceptually similar, the criterion-total correlations within subobjectives were inconsistently signed. As the groupings were created subjectively, no loss of integrity was involved in arbitrarily assigning consistent positive weights to criteria within a

EXHIBIT 9.1

STRUCTURE OF FACILITY QUALITY MEASURES AND WEIGHTS

QUALITY CRITERION	ITEM TOTAL*	SUBOBJECTIVE	WEIGHT	OBJECTIVE	WEIGHT	QUALITY INDEX
4. Personalization of Environment	.21(.50)	1. Enriched Personalized Environment	1.00	1. Psychosocial Environment	1.00	QUALITY INDEX
2. View from Windows	-.24(.50)					
9. Orderliness/Personal & Private Spaces	-.26(.50)					
5. Building Complexity	-.28(.50)					
29. Staff Tolerance/Somatic	.44	2. Staff-Resident Relationships	1.00			
30. Staff Tolerance/Behavior	.35					
31. Staff Recognition	-.05(.30)					
32. Residents' Openness with Staff	-.28(.50)					
34. Group Spirit	.40					
25. Activity Level	.78	3. Involvement in Activities	1.00			
26. Structured Activities	.82					
27. Informal Activities	.38					
28. Resident Interaction	.65					
1. Illumination	.52	4. Physical Plant	1.00	2. Physical Plant & Personal Services	1.00	
3. Condition of Plant	.61					
6. Unpleasant Odors	.90					
7. Cleanliness	.92					
8. Maintenance Practices	.83					
24. General Attractiveness	.82					
11. Food Service/Cleanliness	.52	5. Personal Services	1.00			
12. Food Service/Attractiveness	.55					
14. Residents' Grooming & Personal Care	.35					
15. Nursing Service Staffing Levels	-.32(.50)					
10. Food Service Personnel	.42	6. Administrative & Support	1.00	3. Professional Services	1.00	
19. Pharmacy Facilities	.11(.30)					
35. Inservice/Use of Professional Resources	.81					
36. Inservice/For all Staff	.55					
39. Administrative Resources	.71					
40. Patient Records	.42					
17. Restorative Nursing Practice	.86	7. Rehabilitative & Restorative Care	1.00			
22. Documentation of Restorative Care	.48					
23. Use of Programmatic Resources	.79					
33. Encouragement of Patient Activity	.90					
38. Community Resources	.78					
13. Medical & Professional Support Staffing	-.15(.50)	8. Health Care Services	1.00			
16. Nursing Supervision	.18(.30)					
18. Nursing Policies	.50(.83)					
20. Medications/Practices	.31(.51)					
21. Medications/Safety	-.03(.30)					
37. Professionalism of Staff	.24(.40)					

* Where the weight assigned to criterion is different from the item-total correlation, the weight is given in parentheses.

subobjective. Consider the first subobjective, Enriched Personalized Environment. The signs on the correlations indicate, for example, that Building Complexity (criterion no. 5) is negatively correlated with the sum of the other three criteria in the grouping. Bearing in mind that this scale is scored so that simplicity indicates "high quality" and complexity indicates "low quality", it stands to reason that simplicity (ease of finding one's way around) is a component of personalization that might be negatively correlated with, or independent of, other components of personalization. In a sense, the designer of a long-term care facility is confronted with a series of trade-offs among desirable but somewhat competing characteristics. By ignoring the statistics and assigning equal positive weights to these scales, we reward the facility that is best able to put a simple layout together with perceptual stimulation (eg, criterion no. 2), distinctions between personal and private space, etc.

The "panel of experts" placed the subobjectives into major objective groupings. It was decided that at this level of measurement each subobjective could be looked at as being equally as important in measuring the major objective attribute. For this reason the subobjectives within each major objective were weighted equally. An overall index of resident need and the quality of environment provided by a facility was structured as the unweighted sum of major objective scores.

The results of this development are presented in Exhibit 9.1 and 9.2 which document, for the facility construct and resident construct respectively, the composition of the summary measures of the construct and the item-total correlations of criterion scores to unweighted item-exclusive subobjective scores. Where the criterion weights assigned differ from these correlations, they are shown in parentheses.

EXHIBIT 9.2

STRUCTURE OF RESIDENT NEED MEASURES AND WEIGHTS

NEED CRITERION	ITEM-TOTAL CORRELATION*	SUBOBJECTIVE	WEIGHT	OBJECTIVE	WEIGHT	NEED INDEX
8. Physical Competence/Hearing	.16					
9. Physical Competence/Vision	.34					
24. Physical Competence/Mobility	.26	1. Basic Physical Competence	1.00			
25. Physical Competence/Eating	.32					
2. Self Care/Grooming	.14					
3. Change in Physical Status	.17					
20. Geriatric Rating Scale (GRS)	.65	2. Self-Care Competence	1.00	1. Physical Competence	1.00	
26. Self Care/General	.49					
5. Special Nursing Care/Decubiti	.23					
6. Special Nursing Care/Catheters	.24					
7. Special Nursing Care/Bowel & Bladder	.23	3. Special Nursing Needs	1.00			
27. General Nursing Care	.22					
4. Change in Mental Status	.12					
12. Night-time Behavior	.26					
13. Anti-social Behavior	.31	4. Emotional Competence	1.00			NEED INDEX
15. Need for Psychiatric Care	.24					
1. Communication Skills	.43					
10. Memory Span	.64					
11. Social Interaction	.41	5. Social Competence	1.00	2. Psychosocial Competence	1.00	
16. Situational Memory	.69					
19. Social Judgment	.60					
17. Verbal Competence	.75					
21. Object Identification	.67					
22. Digit Span/Forward	.52	6. Verbal Competence	1.00			
23. Digit Span/Backward	.61					
28. Verbal Intelligence Estimate	.31					
18. Spatial Orientation	1.00	7. Spatial Competence	1.00			
14. Satisfaction with Facility	1.00	8. Perceptions of Facility	1.00	3. Resident's Perceptions	1.00	

* For all resident criteria, item-total correlations were used as weights without alteration.

Following the development of the resident and facility constructs, the matching construct was reviewed. Because of the significant redefinition of the resident criteria, the matching construct was also redefined. This examination included a discussion of which level of the hierarchy, criterion or subobjective should be used for matching. It was decided that the greatest amount of information about a facility's ability to meet the needs of a resident could be obtained if matching was performed at the criterion level. The procedure used to redefine the "matches" was identical to that used in the development of the initial construct. The new matching structure is presented as the tabular definitions of matching scores in the Surveyor's Manual. The "cut-off" values for each resident criterion are also indicated. As in the initial quality construct, the derivation of satisfaction indices for a facility is based upon the matching scores of the facility's residents. For each resident need criterion, the facility's satisfaction index is the proportion of its residents whose matching scores for the resident criterion in question are equal to or greater than the relevant cut-off value. Thus, there is a satisfaction index for each resident need criterion for which matching scores are computed.

The overall satisfaction index defined in Chapter 7(d) is not included in this version of the quality construct because of difficulties encountered in attempting to interpret its meaning. These difficulties centered around the question of whether and how to include satisfaction indices relating to both high and low need on the psychosocial criteria in the computation of the overall satisfaction index. Specifically, on the one hand, inclusion of the low-need satisfaction scores in the overall average would appear to be the same as counting psychosocial needs twice and physical needs only once. On the other hand, the low-need matching scores, on which the low-need satisfaction scores are based, came into being because we felt that "low" need scores on psychosocial criteria (ie, high level

of functioning) indicate particular needs for care matched by particular facility attributes, in ways that low need scores on physical criteria do not. To make this abstract statement more concrete, a psychosocially intact long-term care resident can be said to have needs that should be met by the facility because of his high level of psychosocial functioning in a sense that does not apply to the physically intact resident. As a result, these low-need scores seem to reflect a separate set of needs that should be accounted for in some way in an overall satisfaction index.

One possibility is to compute, in addition to the separate high-need and low-need satisfaction scores for each psychosocial criterion, a third score based on the high-need matching scores for residents have high need according to some standard, and the low-need matching score for residents having low need according to the same standard. Another possibility is to compute a third matching score for each patient on each psychosocial criterion as some combination of the high-need and low-need matching scores, each weighted by degree of need. The facility's satisfaction score would then be based on these combined matching scores. In any case, questions raised by this discussion remain for future development work.

CHAPTER TEN

PILOT TEST SURVEY RESULTS

Following the analysis of the pilot test data and revision of the quality construct reviewed in the preceeding chapter, quality profile scores were computed for each facility and need profile scores for the 280 residents assessed during the pilot tests. The 20 Facility Profile Reports constitute Appendix F. A sample of five Resident Profile Reports, selected to represent different combinations of high and low needs, are presented as Appendix G. This chapter is a discussion of this profile data. The first section very briefly presents data relating quality scores to a few structural characteristics of the facilities and to the subjective rankings of our field staff. The second is a more discursive comparison of the quality scores of five facilities with the field staff notes reproduced as Appendix D of this report. The third is an examination of the sample Resident Profile Reports.

Section (a): Some Possible Correlates of Quality

The presentation of data in this section is accompanied by very little analysis and interpretation for two reasons. First, a strictly substantive examination of what kinds of facilities are better than other kinds was not one of our objectives in this methodological project. Second, and more important, our sample may not be adequate for making inferences about associations among characteristics of long-term care facilities in general, both because of its size and because of the manner in which it was chosen. Some of the findings to be presented may well be due to bias in the sample. They

are, however, suggestive enough to emphasize the need for subsequent studies of larger random samples of facilities. We present them largely in order to suggest that such studies be carried out.

Exhibit 10.1 presents zero-order correlations among the quality scores at the major objective and index levels, and a number of structural characteristics. The exhibit also includes correlations with the subjective ranking done by the field staff after the second pilot test, as reported in Chapter 8(b). Other raw data on which these correlations are based are reflected in Exhibit 8.1 (structural data) and the third enclosure presented as part of Appendix E-2 (quality scores), except that one facility is not included due to listwise deletion in the calculation of the correlations.

In brief, the exhibit suggests that correlations among the 3 quality measures range from .70 to .80. Correlations with surveyors' subjective ratings are .60 to .70. Quality is strongly related to rural or suburban location and nonprofit ownership. Accreditation is correlated more strongly with psychosocial environment than the other two major objective scores. It is noteworthy that Medicare certification (not shown in the table) appears to be a poor predictor of quality; the correlations range from .15 to .20.

Room composition is an excellent predictor of quality of physical plant and personal services. The ratio of all employees to size is a better predictor of quality than is the nursing staff ratio. (Note, however, that these measures were taken at different points in time by different means and may not be comparable.) By itself size is not significantly related to quality.

The extent to which the apparent findings cited in the preceeding paragraphs may be due to sampling bias is indicated by the zero-order correlation between quality scores and skill level (licensure category). These correlations

EXHIBIT 10.1

CORRELATIONS AMONG SELECTED FACILITY CHARACTERISTICS[7]

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Quality Index	1.00	.87	.95	.92	-.70	.72	.51	-.08	.33	.70	.23	-.52
2. Psychosocial Environment Score		1.00	.75	.71	-.65	.73	.59	-.21	.54	.68	.25	-.31
3. Physical Plant/Personal Services Score			1.00	.80	-.67	.63	.53	-.06	.22	.60	.23	-.73
4. Professional Services Score				1.00	-.60	.64	.32	.02	.24	.66	.16	-.33
5. Surveyor's Subjective Ranking[1]					1.00	-.59	-.67	.04	-.29	-.57	-.26	.48
6. Location[2]						1.00	.41	-.12	.31	.44	.12	-.25
7. Ownership[3]							1.00	.11	.20	.61	.41	-.38
8. Bed Size								1.00	.14	-.02	-.17	.02
9. JCAH Accreditation									1.00	.54	.12	.03
10. Total Staff Per Bed[4]										1.00	.54	-.22
11. Nursing Staff Per Bed[5]											1.00	-.02
12. Room Composition[6]												1.00

Notes: (1) Low numbers indicate high ranking (for derivation of measure see Chapter 8(b)).
(2) Urban = 1/Suburban or rural = 2.
(3) Profit = 1/non-profit (voluntary or public) = 2.
(4) Total employees including part time, as reported by administrator before pilot test field work (see Exhibit 8.1
(5) FTEs as reported in Administrator's Report during pilot tests.
(6) Percentage of total beds located in rooms with three or more beds.
(7) Correlation based on 19 facilities. Tests of significance are likely to be misleading due to the sampling procedure.

are shown in Exhibit 10.2, in which each column variable is a dichotomy scored "0" if the facility has no beds licensed at that level and "1" if it has at least some beds at that level. A more sensitive measure (not yet calculated) would be the percentage of the facility's beds licensed at a given level. Although the coefficients for presence of skilled beds would not meet a test of significance, their signs indicate that the facilities in our sample having skilled beds fared worse in the quality surveys than those having only intermediate and/or sheltered beds. This probably reflects the tendency of the skilled facilities in our sample to be urban and proprietary, both apparent predictors of low quality. It is clear from the table that any further secondary analysis of this data would have to introduce controls for licensure level in examining relationships between quality and structural variables. This question of the composition of the sample should be distinguished from the quite separate issue of whether scoring norms should be established separately for different licensure levels. This issue is touched on in the discussion of facility no. 13 in Section (b) below.

The first of the following sections indicates how accurately the profile measures reflect the ambience of the facilities and the second how closely the resident profiles reflect an accurate picture of individuals and their needs. In each section some details are presented that appear to contradict this overall impression of "face validity" in an effort to convey a well-rounded impression of the survey system. For a related discussion of the data on facilities no. 1-9 collected during the initial data base development earlier in the project, the reader is referred to Interim Report, I: 126-147.

EXHIBIT 10.2

CORRELATIONS BETWEEN QUALITY SCORES AND LICENSURE LEVEL[1]

Quality Score	Skilled[2]	Intermediate	Sheltered
Quality index	-.18	.28	.50
Psychosocial Environment	-.20	.37	.43
Physical Plant/ Personal Services	-.19	.10	.60
Professional Services	-.13	.36	.31

Notes: (1) Correlations based on 19 facilities. Tests of significance are likely to be misleading.

(2) Each column variable represents the presence or absence of beds licensed at that level.

Section (b): Facility Profile Reports

In the following discussion we try to match the surveyors' commentaries on the facilities they surveyed with the summary measures and quality criterion scores obtained in the pilot tests. The numerical scores and the field notes are for the most part very close. The numerical scores do appear to reflect the general ambience of the facility as described by the surveyors.

To avoid the possible influence of knowledge of the scores on the editing of the surveyors' notes, the editing was done prior to interpretation of the score reports. The only editing done was to remove comments which might serve to identify any of the sample facilities. No content was added or deleted from the surveyors' notes. These notes may be found in Appendix D. Parenthetically, it should be added that in the notes "last year" refers to the initial data collection (Chapter 6).

To aid in score interpretation a procedural outline for reading the facility profile reports was developed and sent to the various sample agencies with their own profile reports, thus permitting each administrator to assess his/her own report. This debriefing packet is reproduced as Appendix E-2. It is of interest that only one agency of the twenty surveyed responded to the debriefing material by asking for specific clarification of the various quality measures. This was facility no. 19--the agency with the highest overall quality index.

After examining the numerical scores for each of the sample facilities, these were compared with the field notes. This section illustrates this interpretation process and is indicative of the degree to which the facility profile reports can be supported by surveyors' observations and commentaries.

The five agencies discussed here were chosen to be representative of the types of environments found in our sample.

The reader is invited to select one of the other Facility Profile Reports from Appendix F, follow the procedures for reading the report given in Appendix E-2, and then read the field notes in Appendix D for the same facility. The level of agreement of the numbers and the atmosphere evoked by the field notes is, generally, remarkable and indicates that the summary measures are an accurate picture of the facility they are describing.

Our own discussions of these Facility Profile Reports do not refer to the data on satisfaction of residents' needs presented on the second page of each. The reader should be equally cautious in his own reading of the profiles. The satisfaction scores are percentages of residents whose need is judged to be met at a certain level. In 15 of the 20 facilities they are percentages of 12 residents, in the remaining 5 facilities percentages of 20 residents. Since they are based on relatively small numbers of cases they are subject to a great deal of sampling variation--that is, fluctuation across various samples of residents in the same facility. It should also be noted that in a very few instances the satisfaction scores are based on fewer than the number of cases shown in the lower left-hand corner of the second page due to missing information on the resident criteria.

In reading and interpreting the quality scores it is useful to keep in mind that all have means across the 20 facilities of .500 (within rounding error). Standard deviations of the summary measures are as follows:

Quality Index	.071
Psychosocial Environment	.055
Physical Plant/Personal Services	.089
Professional Services	.074

As indicated in Exhibit 10.1, the three major objective measures are highly correlated with each other. The multiplicity of measures in the construct, however, does appear to achieve its objective of allowing us to decompose an overall quality score into a number of components which in turn pinpoint specific strengths and weaknesses. Matrices of correlations among the criterion scale scores are included in the draft version of this final report dated January 28, 1974 (pp. 196-220).

Overall, the facility profile reports substantiated what we had hypothesized to be true: (1) that a number of facilities would achieve a relatively good score for those summary measures that had been stressed by other evaluation protocols; (2) that in some instances our system would be able to identify when a facility "had it all on paper" but "had nothing in practice"; (3) that the quality criterion scores would reflect specific areas of strength and weakness and provide a good indication of where problem areas exist; and (4) that the surveyors,responding as human beings and thus at a global level to each facility, would be either too harsh or too mild in their subjective reports of the facility, while the structured survey forms they had to fill out would reduce this effect and provide a more accurate picture.

Facility No. 3

The quality index number of .539 for facility number 3 may be considered as about average when compared to the other nineteen facilities. The area of greatest strength is in the third major objective, Professional Services. This high score may be attributed to the high scores for subobjectives relating to rehabilitative and restorative care and administrative support. These scores derive their strength from criteria scores that give evidence

of restorative and rehabilitative nursing care, other associated restorative programs, as well as an active inservice program and good supervisory practices.

The area of greatest weakness for the facility is physical plant and personal services. This score may be attributed to the low score for the subobjective concerned with personal services. Attractiveness of the food service and nursing staff level scores are low while grooming and cleanliness of food service are high for this subobjective. In addition, lower scores on the criteria dealing with the condition of the plant relating to the overall cleanliness and odors contributed to the weakness of the major objective score for physical plant and personal services.

The surveyors subobjective comments for facility no. 3 reflected to a great extent the numerical scores. To ease the comparison of numerical scores with the field notes, the surveyors' comments are organized under the various subobjective scores.

1. Enriched Personalized Environment .459

   "...Patient rooms seemed to lack a personal touch, however there were very few personal "things" apparent..."

   "...Regarding complexity of building it is hard to find one's way around..."

   "...Very complex building easy to be confused here and end in wrong area..."

   "...Construction is still going on and this providing many of the men something to sit and watch..."

2. Staff-Resident Relationships .563

   "...Attitude of staff is, "sorry we can't do more for residents."

One LPN said, "I'm really proud to be able to work here..."

"...There was a young man who had left the home (activities department employee) and gone to California. He had been so popular with the residents they got together and wrote him a letter and asked him back. He was very kind and loving toward all the residents he came in contact with. This characterizes the home although large, there still is that very warm and personal feeling due to people like him..."

"...Aides seem to spend more time with residents than his possessions..."

"...Much personnel contact apparent between staff and residents and some obvious affection. Ward clerk (though very busy) had brought a very confused lady in to sit beside her while she continued her work and was reassuring and talking with her in her native language..."

"...An atmosphere of genuine caring seemed to prevail. A feeling of concern was apparent on one unit with a supply of new dresses. Two aides were busy helping the confused ladies try on and select the most appropriate style for each..."

"...I based many of my answers on the number of staff who seemed to be more adequate than some homes and were seen working with patients at more than just dressing, feeding, etc..."

3. Involvement in Activities .632

"...This place was again going full steam when we arrived. The PT and activities department were crowded and busy. One of the few homes where a good number of men were participating in the activities. One was making especially attractive wreaths..."

"...Also 2 Nurse Aides had grouped about 20 in the central hall and

were playing records for them encouraging them to sing and several to dance..."

"...Cooking lessons once a week for residents..."

"...This place has boutique..."

4. Physical Plant .533

"...This is a place that is clean, pleasingly attractive, and has no odors..."

"...There is a feeling of bustle and some clutter, but it is not objectionable..."

"...Patient rooms are "messy" but not dirty..."

"...Overall, quite clean compared to what we have seen..."

5. Personal Service .459

"...The dietary fellows had long hair and no caps..."

"...On the second floor lunch was not served till almost 1:00 P.M. and trays were still being picked up at 2:00 P.M..."

"...Food was good. They have continental breakfast. (This may not be important to many residents, but it would be to me, just knowing that I did not have to be there at 7:30 A.M.) Residents allowed to eat in employee dining room.

"...Some odors but good care..."

"...There was a shortage of nursing staff this day..."

"...Even on the especially "gorky" units the residents were clean and appeared well cared for..."

6. Administrative and Support .591

"...Very impressive facility. A really well run place. Appears to be a really well run institution..."

"...If I ever recommended a home, this is the one which offers the most in every respect..."

"...In-service had a man from Dept. of Reg. & Ed. discussing drug control medications, etc..."

7. Rehabilitation and Restorative Care .598

"...Everyone--housekeeping, etc.--is involved in rehab..."

"...Saw a housekeeping member assisting resident with ambulation..."

"...We saw about 10 patients going through employee dining room. Questioned about this and they said employees resented at first, now accept it. It's part of the rehab program. Held once a week..."

"...Saw aides move residents sitting in wheelchairs and beds. They told me they did this every 2 hours...All patients up and dressed. Only 1 confined to bed and she's in a wheelchair 2 times a day..."

"...Some very young (20's) with severe physical handicaps mixed fairly well with the older people. Much effort is being made to keep them involved. Many had entered the county fair. One of my interviewees had won a blue ribbon. More effort is being put forth to return them to the community. When we were here last they were practicing self-care, care of the apartment, cooking. Four have now been moved into a sheltered care building. It is felt that care structure here will soon be changing to no shelter care, more intermediate and sheltered care with greater emphasis on rehab-restorative and return to community life. Today their bus took groups shopping..."

8. Health Care Services .527

The field notes for facility #3 included no entries that related to the subobjective concerned with health care services. In this instance the surveyors' glowing commentaries and anecdotal notes by and large have been reflected in the numerical scores for the summary measures for facility #3.

Facility No. 6

The quality index number of 430 for facility no. 6 is roughly one standard deviation below the mean and thus when compared to the other nineteen facilities may be described as below average. The area of greatest strength is in the major objective Physical Plant and Personal Services. This major objective gains its strength from an average score for the personal services subobjective. The subobjective, however, is made up of widely varied criterion scores: low scores for nursing service staffing levels and resident grooming and personal care; high scores for cleanliness of food.

The same wide variation of scores occurs in the weakest major objective: Professional Services. Here, although the medical supporting staff are available, they do not seem to be used for inservice education according to the criterion scores. Likewise, although the nursing staff exists, nursing supervision is poor,and rehabilitative and restorative care is poor. In addition, even though the psychosocial environment scores are not the weakest scores, there is an extremely poor score for the subobjective concerned with involvement in activities.

Facility no. 6 elicited brief, explicit, and incomplete comments from

the surveyors. As this is one of the last facilities evaluated during the pilot tests the surveyors' commentaries may show their weariness and impatience with the environment that appears to exist in this agency. The summary measures reflect the ambience of the agency's total environment to a degree. The nursing service staffing levels are remarkably higher than the field notes would indicate and this may be due to a discrepancy between what is written down on paper and who actually appears to be working with the residents on the day of the survey. (See subobjective no.5 below.)

For convenience in making the comparisons the field notes are organized under the related subobjective title,and the numerical score for each summary measure is included.

1. Enriched Personalized Environment .466

   There are no field notes pertaining to this subobjective.

2. Staff-Resident Relationships .497

   "...Felt love for residents by the staff especially on first floor..."

   "...Talked to director and the assistant; and they didn't seem interested in really working with residents. Had feeling they were just "there" collecting salary and it didn't matter to them or staff if they did anything or not..."

3. Involvement in Activities .324

   "...Majority of residents were still just sitting in the lounges..."

   "...Have activities director and 2 assistants..."

   "...A new and not too good activities director..."

   "...Lots of room for potential as far as programs..."

4. Physical Plant .393

"...A very large facility with only partial capacity..."

"...Saw D-Con for mice in staff bathroom..."

"...This home was dirty, stark and institution-like..."

"...Have cleaning contract. Thus clean floors but furniture is not as good as it could be..."

"...An old home which was bought by a group. In process of cleaning it up..."

"...It's a very large sunny solarium..."

"...Lounges on each floor--also a screened in area. Most 2 bedrooms with bath..."

"...This building has much potential. Many areas that could be utilized for programs. Most day rooms and lounge areas of any building we have been in. Odors are much better controlled. With a couple of highly motivated housekeeping staff this building could be saved..."

"...Building reopened 3/5/72. It is cleaner than 1 year ago; floors are shining, clean walls. Believe they are using a cleaning maintenance service..."

"...Resident's clothing done here but all linens sent out..."

5. Personal Services .531

"...Kitchen had diabetic 1,800 calorie diet posted and 3 week menu cycle..."

"...We ate here and had meat loaf which was just swimming in fat..."

"...A new administrator and director of nurses since July. They are in process of improving but have a long pull ahead. Twelve staff for this large facility. Residents quite dirty, smelly. The orderly is allowed to work 2 shifts. There are many male residents. Many new staff and residents..."

"...They were very short staffed..."

"...Residents were dirty..."

"...Resident had no underwear--just a thin dress. She was sitting all day on bare wheelchair..."

"...Three young aides were responsible for care of 42 residents..."

6. Administrative and Support .382

"...A very young administrator..."

"...There are mostly public aid residents..."

"...Director of food services says she has worked here for 22 years..."

"...One aide I talked to has been here 2 months, has no experience other than caring for grandmother and has had no orientation as an aide..."

"...Now there is no communication. A lady left for the hospital by ambulance. All the nursing staff knew, and it was written in their log book but nothing on chart and no order. Later they realized she was admitted to hospital and would not be back. Another man arrived by ambulance, and no one seemed to know he was coming or what to do with him? Also no orders. When I left they were attempting to find the doctor. A xerox copy of standing orders was on the chart and doctor's signature was xeroxed also..."

7. Rehabilitative and Restorative Care .324

"...One resident was sliding out of wheelchair, down to shoulder bones on seat, draw sheet almost around neck. Aide attempted to pull her up and made 2 very unsuccessful attempts. Obviously did not know how to start..."

"...Generally smelly residents. No rehab seen..."

"...They had given little or not rehabilitation or restorative nursing care..."

8. Health Care Services .495

Here again there are no available field notes.

Facility No. 10

The quality index of .457 for facility no. 10 is within one standard deviation of the mean and thus when compared with the other nineteen facilities may be described as only a little below average. The area of greatest strength is the major objective for professional services. This major objective gains strength from an average score in the subobjective for health care services and from extremely good scores on the quality criteria for medication practices and medication safety. However, there are significantly poor scores in nursing policies, professionalism of staff, and with one interesting exception, poor scores overall for the subobjective concerned with rehabilitative and restorative care. The exception is in a very high score for documentation of restorative care with a non-substantiating score in restorative nursing care practice.

The area of greatest weakness is the major objective, Physical Plant and Personal Services. A low score is recorded for the subobjective physical plant and a better score for the area of personal services even though there is a low score for nursing service staffing levels. Although the psychosocial environment major objective score is within the range designated as average there are poor scores in the subobjective dealing with involvement in activities and poor criterion scores for personalization of environment and view from the windows. However, there are excellent scores for the criterion dealing with staff/resident relationships. This is an area of strength for this facility.

The surveyors responded to their visits to facility no. 10 with voluminous notes. In retrospect it seems as if this survey, coming directly after one or two intense days in other facilities, encouraged both note-taking and griping about the settings in which the nurse surveyors found themselves. What remains provocative is the almost excessive verbalization about resident care while the scoring presents a more objective view of the facility. This may indicate that although the environment was bad in many, many ways, it was not all bad. To some extent the field notes reflect this when one surveyor described the behavior of the activities director when she is observed interacting with the residents. (See subobjective 3 below.)

The following commentaries have been organized under the subobjective titles and the numerical scores for the summary measure for the subobjectives are indicated.

1. Enriched Personalized Environment .442

   "...The facility is fairly new looking with artificial flower boxes decorating the outside and a small patio with benches to one side of entrance. I saw only 2 men sitting outside on them. Two did some work around building. New addition is to go up soon..."

   "...Most rooms have 3 beds and seem crowded (really would be just the right size for 2). This is probably why once they are up and dressed they spend the rest of their time in the halls..."

2. Staff - Resident Relationships .572

   "...There are many new staff who do not know residents..."

   "...Most of staff was very young; many were new. There is no formal orientation program. A new girl is assigned to work with longest employed aide who will show her what to do..."

"...Many of the residents served osterized food. (A quick way to feed them?)..."

"...Neither (R.N.) were ever observed interacting with residents..."

3. Involvement in Activities .357

"...The activities director still works so very hard with residents..."

"...The activities staff were very friendly and the initial tour was done by the activity director. She is a very warm outgoing person. Observed her feeding lunch and supper trays, setting hair, applying make-up, hugging many, touching many. She appeared to be very loved by the residents..."

"...They do have an activity director but she is busy doing other jobs..."

"...Good activities director. She was especially interested in residents. The nursing staff was young and cooperative with one another. If one finished she would help another. Food seemed appealing to patients. This is a smaller residence and promoted more friendliness in staff and residents..."

"...Activity people are bringing the only "extra" into their days..."

"...Very little interaction among residents. The activities director brought seven to day room and did a sensory stimulation session. After it was over, they all still just sat there for more than an hour, no one moving, no one talking..."

4. Physical Plant .443

"...Only one man was observed mopping floors. I saw one I could identify as housekeeping. One lady does laundry for entire home one man does maintenance..."

"...Only a few residents are taken to dining room for meals; most are fed out in halls..."

"...The halls are very congested; more than half of the residents are in wheelchairs. Very few were ambulatory (don't think I saw but 2 walkers). Halls so crowded that it is difficult to get around. There is always a feeling of congestion, clutter..."

"...Home seemed cold to me. Residents who were bathing and/or had wet heads were cold..."

"...Really had an opportunity to check out what I wanted and not a gut response. In our previous visit, I just wanted to walk out as soon as I came in. Am I getting used to it all, or was it really cleaned up? I think so..."

5. Personal Services .460

"...Had a lump in my stomach from the time I got there till I left. Poor patients. Some hadn't had a bath (those confined to bed) when the afternoon shift came on..."

"This place was horrible. Six untrained aides for all those patients. Many complained of hunger. I'm sure they can't all get fed all their meals with this little help on. Horrible odor. One LPN. At least one half of the patients spent day in bed. I feel a need to report them or something..."

"...With so many men they should have an orderly or at least a barber!..."

"...Regarding care after I had finished resident interview of man at 11:30 (His breakfast was still spilled in large amounts on his chest and in his beard. At first I thought he had had an

emesis.) The aid who has been there the longest and is training the others came in (while I'm sitting at the end of bed) and proceeded to strip him and left him nude for 15 minutes while she went for water, towels, clothes, etc. I use this as an example of the complete lack of concern for the old man's dignity or his feelings of worth. I had asked her if he had any decubitis or infected skin area and she said, "Oh, no!" When she turned him to side his back was a mass of red, open draining areas over most of back. When I left at 5:00 P.M. he still had parts of his breakfast stuck in his beard..."

"...There are many men in this home. All were finally dressed in flannel shirts, undershirts, and washable pants by noon. Many were not shaved however and many had bad breath..."

"...The average assignment was 10 patients. One team has same assignment for one week and sometime during the week each patient will get a bath..."

"...Meals are delivered to where patient happens to be. Cook seems outstanding as she had baked from "scratch" apple slices for all residents; she uses very few convenience foods; cooks everything from "scratch" and seemed to enjoy her job. Trays were attractively served, but could easily become cold if staff didn't serve immediately..."

"...I noticed in their manual that the director of nurses was covered for $100,000 malpractice, I can see why. Twenty residents per aide means they are very short of staff..."

6. Administrative and Support .456

"...In-service records show they are held monthly for nursing--records were very correct. (Too correct! No staff member I asked had been to any.) They have several on VA contract, but they look like "Madison Avenue bums." I felt that some of these could be salvaged if they could be given confidence that someone did care and they had some reason for trying. The CVA's are given no help in keeping what they have and are just vegetating..."

"...Fire and evacuation plans are posted, but I was unable to interpret them and I wonder if the staff can?..."

"...A real special!! When we walked in the front door I wished I could have walked right out. The smell would kill you. They will be starting an addition shortly. Most of the space will be used for physical therapy, occupational therapy, and lounges which are sorely needed. Few residents eat in dining room. Last physical on employee was in 1969 unless the record was not complete..."

"...There was lack of rehab or restorative nursing procedures and no evidence of formal training for new nurse aide staff and no current in-service program. Charts are not kept up well..."

"...For in-service there was a record to July, but no record after that. Most nursing aides were new and could use some in-service..."

7. Rehabilitation and Restorative Care .433

"...Director of Nursing was supposed to have taken the rehab course but no evidence anywhere that she did. No evidence staff knew anything about rehab techniques--ROM, ADL, B&B, positioning, etc..."

"...Activities director was observed doing gait training and assisting residents in learning to walk. (No gait belt observed.)..."

"...Aides worried about getting residents up before lunch regardless. All chatted together leaving residents alone for a long time. This is a very time regimented place. No restorative nursing seen..."

"...No evidence of discharge planning although care has been taken to have ECF forms correctly filled out. The U.R. minutes said the right things..."

8. Health Care Services .501

"...In most respects life here would be on par with facility number 5..."

"...The nursing staff is only concerned with "tasks" and not the person inside..."

"...Observed that the aides do all the patient care. Director of nursing charted and worked with doctor while the other R.N. passed medication..."

"...Charting methods should be up-dated. Charting is routine and there is little evidence of psychosocial patient care concepts..."

"...Met the medical director while interviewing. He stated it was about time inspectors talked to residents and saw what was really going on and not just sit and go over records picking over little items he might have forgot. (He is an older man and seems well liked by residents.) I didn't tell him he had not ordered a diet for a patient who was admitted in July. (They were feeding her anyway.)..."

Facility No. 13

The quality index of .602 is well above the range designated as average and thus may be described as above average when compared to the other nineteen facilities. The area of greatest strength is in the major objective Physical Plant and Personal Services with an outstanding score in the physical plant subobjective as well as overall high quality criterion scores for this area. Although the nursing service staffing level score is low the residents grooming and personal care score is quite high and the subobjective score for personal service is excellent.

The area of greatest weakness is the major objective professional services with an outstandingly low score in nursing supervision and significantly low scores in the pharmacy facilities, patient records, medical professional support staff, and medication practices. It is noteworthy that the rehabilitative and restorative care subobjective score is high and that both restorative practice and documentation of restorative care as well as encouragement of patient activity have excellent quality criterion scores. In addition there is extremely high score in the area of involvement in activities. The lower score in the area of informal activity is more than made up by the excellent scores in the other criteria for that subobjective. For the area of staff-resident relationships the staff apparently is able to tolerate somatic complaints while having little tolerance for maladaptive behaviors and little group spirit, and the scores indicate that overall the staff relates well to the residents.

The following commentaries for facility no. 13 have been organized as they relate to the subobjective summary measures. To facilitate comparison of the surveyors' comments and numerical scores, the subobjective scores are included.

1. Enriched Personalized Environment .597

"...There was a well kept yard, new and a well maintained building..."

"...Building is good but confusing..."

2. Staff-Resident Relationships .505

"...In trying to decide what's wrong in what could be perfect home there doesn't seem to be any real affection shown to residents, any real concern for them. Attitude of all seems to be get the job done. It's where the bricks and mortar are pretty, but?..."

"...Good staff relationship..."

"...There seemed to be a feeling of tension between the administrator and director of nursing and the staff. I heard several unkind comments that I'm sure reflected the morale of the staff. She had difficulty getting staff..."

"...Both Director of Nurses and Administrator were one year new to the home. I sensed among the staff that neither were liked too well. They had lots of trouble recruiting staff..."

3. Involvement in Activities .704

"...Their activity program and level of activity in home seemed higher than average..."

"...The activities director had many activities. Bible school, stories, quizes, and hymn sing..."

"...Saw people playing cards and piano on own initiative..."

"...Very quiet home, very little talking or activities. The mealtime was rather silent and all but 3 residents sat in the 2 dining rooms. Most in main dining room. Those who eat with difficulty eat in a smaller dining room..."

"...Saw people playing cards and piano on own initiative..."

4. Physical Plant .707

"...Facility is attractive 3 wing facility. Had several lounges and chapel. Linen supply very good..."

"...Physical plant, freedom of residents. It had the feeling of home to them and to me..."

"...They had just installed $5,000 fire doors. Very clean..."

"...More like a hospital. I feel they're doing intensive care, but classify it as intermediate..."

5. Personal Services .595

"...Pretty well staffed. Residents were especially well groomed..."

"...Good ratio of staff to R.N.'s. This is intermediate and sheltered care..."

"...No licensed nurse on noc shift..."

6. Administrative & Support .555

"...Records: I've never saw any so bad; no system..."

"...Biggest problem was poor charts which they are working on improving..."

"...Good in-service..."

"...She's been there 1 year and staff told me she's made some fine improvements. They're operating in black for the first time..."

7. Rehabilitative and Restorative Care .667

"...High average restorative nursing..."

"...Don't need B&B or decubitis routine..."

Obviously, in this facility thessurveyors responded to the excellent condition of the physical plant, to the tensions (obvious to visitors) between the administrative staff and those giving direct resident care. The dissonance between what the surveyors wrote and what is to be found on the score sheets is difficult to identify save that this home has no skilled patients and is primarily focused on intermediate and sheltered care. These two less intense levels of care may not need high numerical scores on certain quality criterion and/or for certain summery measures (see Chapter II(a)). One other factor that may have influenced the scoring is best illustrated by a surveyor's comment which does not fit neatly into the quality construct: "...Both the administrator and the director of nursing were sitting in our laps all day..."

Facility No. 17

The quality index score of .414 for facility no. 17 is more than one standard deviation below the average and thus when compared to the other nineteen facilities may be considered as definitely below average. The area of greatest strength is in the major objective for psychosocial environment. The score here is average for this major objective but is numerically higher than the other major objectives. This major objective gains strength from excellent aubobjectives and related quality criterion scores in the areas of enriched personalized environment, staff tolerance of behaviors and physical complaints, good group spirit and a simple non-complex structure. This major objective, however, loses strength from the overall poor scores in the areas of involvement in activities and a very low score for the quality criterion for resident's openness with staff.

The areas of greatest weakness is in the major objective score for physical plant and personal services. The physical plant scores are significantly lower and this may be attributed to the very low scores on general attractiveness. The personal service scores are not indicative of good care even though the nursing staffing levels are significantly high.

For the third major objective professional services the scores are in general poor. There is an outstandingly low score in use of programmatic resources and an outstandingly high score in the area of medical and professional support staffing and medication/safety. However, this does not compensate for the overall poor scores in the rest for the health care services subobjective or in the overall poor scores in rehabilitative and restorative care. It is also noteworthy that the documentation of restorative care exceeds the indication of actual practice of such care.

When the field reports of the surveyors are compared directly to the numerical scores obtained for the various summary measures for facility no. 17 they are to a great extent congruent. The following comments and subjective statements of the surveyors are organized according to the sub-objectives and the numerical scores for the specific summary measure are included.

1. Enriched Personalized Environment .503

"...Private room is expensive. Dermassage and baby powder are charged to the patients..."

"...A quiet home, sounds of music, every day living type noises, but overall relaxed..."

2. Staff Resident Relationships .462

"...Staff appear relaxed. All seem to have been here a long time

and they work well together to assist each other. But the staff still seems superficial, no real involvement, no affection was shown; job was done and that's it..."

"...Didn't hesitate to gossip about residents or their families with idiosyncracies..."

"...They are gentle and patient with residents..."

3. Involvement in Activities .366

"...They have 1 activities director 5 days a week plus one assistant..."

"...Most of the activities of the home take place in old section, and residents spend most of their day there. Two activity people attempt to occupy them. A good sensitivity group was held for 4 residents. Other persons worked with bright colored shapes and the staff had them arranging them. Later patients colored placemats..."

"...Activity program was good--seemed to appeal to a variety of residents..."

"...Activities director has sensory and senility group therapy. Nothing more was very impressive..."

4. Physical Plant .328

"...This is a beautifully decorated home, they are short staffed. There is a bad odor as it is not very clean..."

"...The linen supply is by contract and there is a very good supply. All diapers are seconds. I had lumps all day as it was dirty and smelly..."

"...Difficult to put finger on outside appearance of very attractive home. Care has been taken as to the use of color and with the furnishings, but the beds need to be oiled as they are very difficult to crank..."

"...The building was built in the 1950's; an addition in the 1960's..."

"...Physical plant was attractive..."

5. Personal Services .418

"...Nursing staff had all been there for many years..."

6. Administrative and Support .430

"...And they have excellent records..."

7. Rehabilitative & Restorative Care .398

"...Some evidence of B&B training (first place I witnessed this)..."

"...No apparent rehab nursing here..."

"...The administrator seemed concerned about the physical treatment and the cleanliness of residents. No reference ever to rehab or restorative care..."

"...Staff has a pretty heavy load especially with 34 incontinent, no catheters. One resident I had came in with catheter. Saw no orders for removal of same. Administrator's report said "no catheters."

"...And they took the time to allow resident to do as much as he could. ADL was being carried out..."

8. Health Care Services .453

"...Do have a social service consultant. One of my residents was there since 1964, but saw no social service report on him..."

"...The policy manual states beauty shop and barber open 1 time a month. Day shift charts Monday and Saturday. P.M. shift charts Tuesday and Thursday. Night shift charts Wednesday, Friday, and Sunday. MOM and ASA are the standing orders..."

The different observations by the surveyors about rehabilitative and

restorative care are important because the facility indicates some ability to provide this care but not enough to maintain an average score. On the other hand the general tone of the commentaries as related to the overall scores do indicate a facility that is unable to provide quality care as it has been identified by this project.

Section (c): Selected Resident Need Profile Reports

Essentially the same process described above has been followed with the Resident Need Profile Reports. The summary measure scores were interpreted first and these interpretations checked against the actual item scores and notations written by the surveyor while interviewing the resident. Here again the correspondence of the numerical scores to specific notations is generally close. In only one instance of the 5 discussed here did the raw data indicate an individual noticeably more impaired than was indicated by the numerical scores.

For this presentation, as for the discussion of the facility scores, five patients were chosen as representative of the kinds of deficits, impairments, and problems that are to be found in long-term settings. The individuals ranged from one both psychosocially and physically competent to persons impaired in one or the other dimensions and an individual impaired in both spheres of life. The five Profile Reports are presented in Appendix G.

Standard deviations of the need scores can be expected to fall generally in the range .04 to .06. The cut-off points against which to compare matching scores are documented in the "Computation of Matching Scores" section of the Scoring Manual. With regard to the matching scores, the reader should also note that they are <u>not</u> subject to the same caveats about sample size that were set forth in Section (b) regarding the need satisfaction scores derived from them. Resident identification numbers consist of the facility number, followed by a dash, followed by the resident's number in that facility sample. Thus, resident no. 16-04 is the fourth person interviewed in facility no. 16.

Resident No. 3-10

This resident had an overall need index of .44 indicating a low-need, intact individual. The overall major objective scores showed an individual who was not completely happy or satisfied with aspects of the facility in which he/she was housed, and one who was not as well able to cope psychosocially as he/she was physically. This can be seen in the need criterion score indicating some decline in physical status, some decline or change in mental status, a score indicating need for psychiatric care, and an indication of low verbal intelligence. This assessment of patient need was substantiated to a degree when the raw data obtained in the Patient Review was compared to the numerical scores, i.e. in relation to satisfaction with the facility this patient's verbatum statement was "don't like some of the other residents." Moreover, when questioned, the staff indicated this resident was in the facility "because of the way he/she acts." The chart review indicated that this specific individual needed rehabilitative nursing procedures done by nursing personnel although the individual's physical condition had neither gotten better nor worse but had remained essentially the same while in the facility. (This person has lived in the facility for more than five years.) The raw data also indicated an individual who did receive medication on a regular basis and that he/she needed some diet therapy. The overall review of the raw data indicated a relatively close association with the scores as compiled on the resident's profile report.

Resident No. 12-02

This resident, with a need index of .54, may be considered an individual with high needs and a person who was not intact. However, this particular person was needy in relation to physical problems rather than psychosocial needs. It was also noteworthy that satisfaction with the facility score indicated "dissatisfaction." There was some indication in the subobjective score numbers that this patient was not as fully socially competent as he might be but the majority of the problems/needs were in the areas of basic physical and self-care competency. The need criterion scores indicated a patient who had trouble seeing, who was not mobile, who had some problems in caring for him/herself, was incontinent/involuntary sometimes, and whose mental status was slightly impaired. The "*" in this instance indicated missing data and were therefore not included in the numerical score totals. When the numerical scores were compared to the actual raw data it was found that the person was aphasic but did communicate well non-verbally and was able to follow directions, that this individual needed extensive help with his/her personal care and mobility, that he/she was involuntary at times, that his/her mental and physical status was essentially unchanged since admission, and that although this person knew staff members he/she had no friends and minimal social contacts and/or activities within the institution. This resident's family and/or friends did visit at least once a week but the patient had not gone away overnight to visit with them since admission. The raw data also confirmed that this was a person whose vision and hearing were impaired but who was perceived by the staff as having no problems in

this area of competency. The staff interview indicated also that institutionalization had occurred for this individual due to reasons other than maladaptive behaviors.

For this resident too the Resident Profile Report major objective scores were congruent with the field notes and the more detailed content to be found in the raw data. The major objective score for physical competency indicated a needy person, while the psychosocial score indicated one who was managing. This resident's psychosocial summary measure score reflects his/her ability to communicate at a non-verbal level relative to always-sometimes-never type questions which were the format for the items in these scales.

Resident No. 20-01

The resident identified as 20-01 had a need index score of 0.51. This score indicated an individual near the middle of the distribution in terms of overall impairment. The major objective scores indicated a person who was physically competent but who was compromised in the psychosocial aspects of life while relatively well satisfied with his/her present living situation.

The subobjective scores identified specific areas of competency for this person. The basic physical competency score indicated an individual who was mobile, able to hear, see, and feed himself/herself, while needing assistance for personal care. The emotional, social, verbal, and spatial competency scores indicated a person who displayed antisocial behaviors, was not able to follow directions well, and who was forgetful. It was possible that the resident's perception of his/her environment indicated satisfaction because he/she was unable to maintain a sense of history relative to his/her daily life due to compromised memory span.

When the scale scores were compared to the raw data the following similarities were identified: This person was not able to follow directions, was forgetful, verbalized that the institution was his/her "home" and that he/she liked everything about it, and he/she threatened others, yelled, and would take things from other residents; the field staff described this individual as looking alert but unable to comprehend what was happening to him/her and what was going on about him/her and a person who was delighted to have the company the interview provided.

The chart review indicated a need for a special diet and tranquilizing medication. The staff interview indicated that this person needed some

assistance in activities of daily living, and that he/she had a communication problem. The raw data also indicated that this person was able to identify only one staff member and that social contacts and activities were limited. The staff interview also provided the information that this resident had been "placed" because of the "way he/she acted."

Resident No. 11-08

The report for resident no. 11-08 indicated an individual of low need and one who was substantially intact. The major objective score in the area of resident satisfaction indicated a person who was highly satisfied with the environment of the facility in which he/she found themselves. This person's psychosocial competency was somewhat better than his/her physical competency, and this was supported by overall scores indicating a person who was intact in the areas of emotional competency, social competency, verbal competency, and spatial competency. On the other hand, this individual has some problems in physical competency and some indication of special nursing needs. In the area of physical competency the score would indicate that this patient was deaf, that he/she had some problem seeing and that there was a problem with mobility. Other related scores indicated an individual who was getting better and who was able to manage his/her own personal care well. The need criterion scores for the major objective, psychosocial competency, indicated that the mental status of this patient was improving, that this patient did have some antisocial behaviors, but that the overall picture was of a person who was functioning well. When the need criterion scores were compared to the raw data the numerical scores can be supported. For example, relative to satisfaction with facility the resident stated, "I can't think of anything I don't like, don't have a thing against this place at all." The medical record review indicated an individual who entered the facility for physical rehabilitation, a person who needed a special diet, and who was receiving physical rehabilitation. The staff indicated that the resident did yell and disturb

the rest of the facility at times and that this individual was extremely deaf, needed to wear glasses, did not wear a hearing aid but was improving in all areas of life. However, the staff person did not feel that this resident could get along outside the facility although he/she had improved both physically and mentally since admission.

The asterisked high need matching score for Physical Competency: Hearing was relative to the resident not using a hearing aid and was no indication that facility does not have the resources to explore and perhaps provide the necessary therapeutic intervention for this problem.

Resident No. 20-10

Resident 20-10 had an index need of 0.48. This score was indicative for individuals who had low needs. The score was based on relatively low numerical scores for the three major objectives. Of the three major objectives this person was most compromising in the area of physical competency. He/she was not able to see and hear well, and his/her physical status had worsened since admission.

This individual's psychosocial competency however was intact and the need criterion score indicated problems only in the area of social competency due to low social interaction and failing memory. The scores also indicated that this person was satisfied with the facility in which he/she had been placed.

When the numerical scores were compared to the field staff notes the resident was described as "blind, deaf" and receiving "continuous oxygen therapy". He/she was able to follow orders and did indicate great loneliness although the aspect that this resident liked best about the facility was his/her relationships with the staff.

The medical record review and staff interview indicated an ill patient who needed help with their personal care and who required specific nursing care related to his/her worsening condition. It was probably true that the social competency score was affected by this individual level illness.

In this instance the resident profile report did indicate to a degree the needs of the individual. However, the most informative portion was the 0.54 score for general nursing care, and the .077 score for change in physical status, and the IDPH point count of 8 for item #13 rather than the summary measure scores.

Oxygen - under the Illinois Department of Public Health system was noted at the bottom of the profile report as were the other thirteen aspects of patient care scored for reimbursement by the Illinois System. Additional clues are provided in the results of the Medical Review used by the Illinois Departments of Public Health and Public Aid, reproduced in the lower right hand corner of the Profile Report. The derivation and use of these measures is discussed in Chapter 7(b) and documented in Exhibit 7.4.

In conclusion the summary measures and quality criterion scores from both the patient profile reports and the facility profile reports do give in most instances a reliable picture of the patients' competencies and incompetencies and the facilities' environmental strengths and weaknesses.

CHAPTER ELEVEN

IMPLEMENTATION AND FURTHER DEVELOPMENT

The quality evaluation system for long-term care is a product whose utility is reasonably well-known. We can train surveyors, collect data, calculate scale scores and profile measures, and interpret findings, with good assurance of success. Some important questions, however, remain - especially with regard to implementation of the system in a regulatory framework. Such questions are the subject of this chapter. They are organized under four headings: (1) opportunities for further refinement of the system itself, (2) the present state of the art in long-term care licensing and regulation, (3) requirements for regulatory implementation, and (4) recommendations for further work.

Although this chapter, aside from the first section on potential improvements, will focus on regulatory implementation, it should be clear that the quality evaluation system will be useful in other contexts as well. Most notably, it would provide reasonably comprehensive instrumentation for a long-term study of the relation between process and outcome evaluation. That is, facility quality scores can readily be compared with changes over time in the status of a panel of residents. Such studies should also collect cost and other data on facilities, allowing examination of the impact of a variety of factors on patient outcomes. In a somewhat narrower frame of reference, the system suggests itself as a powerful program evaluation tool. Before and after measures of facility quality and resident satisfaction, with or without control groups, should accurately reflect the impact of new treatment modalities, staff education programs and other innovations.

In addition, the evaluation system should be useful to individual facilities. Survey results should play a role in planning of the overall treatment program and in development of inservice programs. We do feel, however, that surveys for these purposes should be performed by outsiders rather than facility staff.

Section (a): Further System Development

Analysis of the pilot test data collected in October and November, 1973 was limited to the examination of reliability, validity, weights, and scoring outlined earlier (Interim Report, I: 155-161). Since very little time was available for this analysis, a great deal of ore remains unmined. Some of this relates to substantive research concerns, much of it directly to further system development. Thus, significant work could be done with only the existing data, time, and data processing support. Other development work would require new data. In this section we will outline briefly some suggestions for work in both of these categories. Although this discussion is somewhat sketchy, it should provide some further insight into the present status of the system.

First, future analysis should attempt to generate scales for a small number of components of quality that should be included among the criterion scales but are not. Most notably, to Facility Subobjective No. 1, Enriched Personalized Environment (see Exhibit 3.3), we would like to add two criteria. One is a measure of the extent to which the environment is coded, e.g., functional areas and rooms are clearly labelled in large lettering or pictures and/or are color-coded. The other is a measure of structuring of time, a concept partially covered in the initial data base but for which data analyzed so far has not yielded a good scale.

An addition to the facility quality scores based on existing data would be measures of the consistency of staff attitudes. Concepts of the therapeutic milieu, developed particularly in mental health, emphasize the importance of consistency among staff in their attitudes toward residents' behaviors and the facility's programs. Our facility survey data, which includes responses

to attitude items from random samples of on-line staff, should provide a basis for construction of measures of staff consistency. As reported in Chapter 9 (a), our efforts so far suggest the need for reanalysis of this data. For the time being, scales included in the previous version of the quality construct (Interim Report, I: 93 & II: 18-19) have been dropped.

The Patient Review scoring protocol includes an entire major objective, Residents' Perceptions (see Exhibit 3.4), containing only one scale, a measure of the resident's satisfaction with his facility. Our intention is that this objective should consist of two subobjectives, one dealing with the resident's perception of the facility, the other with his perception of himself and his needs. The latter could have at least two attitude scales, one measuring perceived need for physical medical, nursing and rehabilitative services and the other measuring perceived psychosocial needs. The former should include at least the present satisfaction scale and a scale designed for administration to candidates for long-term care placement measuring their desires and preferences about placement and types of facilities. Restructured along these lines, this part of the construct might look something like Exhibit II.1.

Most of this development work on residents' perceptions would require new data collection. Absence of this material from the present construct reflects its relative absence in previous research. In fact, the material in our own initial data base instruments on satisfaction with the facility was developed by project staff rather than taken from existing literature. We feel this work should now be carried several steps further.

Another suggested addition to the patient construct is a second test measuring spatial competence. The present spatial orientation scale,

EXHIBIT II.1

PROPOSED RESIDENT MAJOR OBJECTIVE 3*

Need Criterion	Score	Matching Scores: High Need	Matching Scores: Low Need	Subobjective	Score
14. Satisfaction with Facility				Perceived Satisfaction	
29. Desires for Placement					
30. Perceived Physical/Medical Needs				Perceived Needs	
31. Perceived Psychosocial Needs					

* To be compared with Exhibit 3.4.

Criterion No. 18 (from Benton, 1959), measures this competency in terms of parts of one's own body. Another test should focus on external space, perhaps, for example, points of the compass. It should be noted that the additions to the Patient Review suggested here would be made at the expense of additional testing time.

Our analysis and modification of existing scales included scale analysis of patient review items new to the pilot test questionnaires, but not of new facility survey items. Analysis of existing data could well lead to other new criterion scales.

Further consideration should also be given to two features of the matching construct. First, a decision was made to develop matching scores at the criterion level rather than at the level of summary measures. As yet, no effort has been made to develop a hierarchy of summary matching scores. The shape of this part of the quality construct should be examined in conjunction with the potential applications in a patient evaluation and placement system to be considered in Section (c) below.

Second, the present matching construct includes two matching scores for each criterion scale derived from standard psychological tests, one based on care needs represented by high test scores and one on care needs represented by low test scores. Superficial analysis of the data presented in Chapter 10 (a) and earlier (Interim Report, I: C1-C26) indicates that the matching scores based on facility attributes judged to meet the needs of residents who do well on the psychological tests generate little variance among facilities. Additional attention needs to be given to the calculation of these measures and to developing a rationale for their interpretation. For a related discussion of the "overall satisfaction

index" included in an earlier version of the quality construct, see Chapter 9 (c).

In addition to these suggestions for development of the existing scales, summary profile measures, and matching construct, several other aspects of the survey system as a whole need to be addressed. These include the following five points.

(1) The validity of the norms for scoring derived from the 20 pilot-test facilities is somewhat questionable. As presented in the Scoring Manual, these include norms for standardizing item scores and norms for cut-off points for matching scores. These estimates, although submitted as part of the construct, should be viewed as preliminary. Better estimates would require data from a random sample covering at least one state; national norms would require a national sample of facilities. The specific problem with the present pilot-test sample for these purposes is that it (deliberately) over-represents skilled level beds as a percentage of the total.

(2) Further analysis is needed of variations in facility profiles by level of care, especially to determine whether quantitative standards for interpretation of quality scores can be established differentially by level of care. For example, if pass-fail points were superimposed on the scoring system, for which criteria would they differ by level of care and for which would they be the same? Although the pilot test sample allowed us to assess the feasibility of administering the system at the three levels of care licensed in Illinois, it was not large enough to support these statistical analyses of the scoring protocols.

(3) The usefulness fo procedures for surveying facilities on only

a subset of the total number of items remains untested. In principle, criterion scores could be calculated from random samples of the items in each criterion scale. Alternatively, subobjective scores could be estimated from a subset of the criteria in a subobjective. In principle, alternative forms of the instrument would yield highly correlated estimates of criterion and/or subobjective scores. Either procedure would make possible shorter, less time-consuming surveys. In addition, either would reduce learning effects among facility personnel caused by repeated administration of the same items. This factor is especially important in the attitudinal items used to assess psychosocial environment.

As indicated in Section (c), in the discussion of incorporation of our present product into a management information system, implementation of procedures for sampling items is dependent on this further development. One model for the use of short form protocols exists in the Illinois inspection system. Facilities receive a full inspection annually, plus two or three quarterly short-form inspections. Items for the latter are, however, not sampled from the total item pool but constitute a fixed series.

(4) We have not developed and tested a computer program for scoring survey data and generating profile reports. The pilot test data were scored by a series of separate routines programmed in PL-I. The use of PL-I was dictated by availability of programming staff, rather than consideration of potential implementation sites. These routines derived norms from the body of data being scored and are unable to apply internally or externally generated norms to new data. The core storage requirements of these routines for processing more than our present 20 facilities makes their implementation infeasible. In addition, these routines do not pro-

duce easily readable output. For interpretation, we transcribed scores manually onto the profile report forms shown in Exhibit 3.3 and 3.4.

Ideally, a scoring program developed in the future should be structured roughly as follows:

(a) The program would utilize an externally-generated set of norms to score each new facility and its residents independently.

(b) At the same time it would maintain a file of the parameters necessary for calculation of norms. These parameters are:

(1) for each item, number of records (facilities or residents), sum of the item scores, and sum of squares; and

(2) for each matching score, number of records, sum of the matching scores, and sum of squares. The parameter files would be updated continuously, ie, each time a new facility survey and/or set of patient reviews is scored.

(c) At predetermined intervals (perhaps annually), these parameter files would be used to revise and update the previous norms. A program of this complexity should include in profile reports, along with the identification or face sheet data referred to in Chapter 3 (d), a means of identifying the source of the norms used.

(5) Although our field experience during pilot-testing, and preliminary interpretation of the resulting score reports, indicate that the survey instruments in their present form are quite satisfactory for future use, we recommend that additional refinements be made as time and resources become available. These refinements include:

(a) construction of face sheets for identifying information not used in the scoring;

(b) some rearrangement of the material in the Surveyor's Observations section in the Facility Survey;

(c) transfer of some census and staffing data from the Administrator's Report to the Surveyor's Observations (to be filled out the day of the survey rather than before or after);

(d) redefinition of response categories for some items to improve reliability; and

(e) a different format suggested by our surveyors for coding certain facility attribute data (quality of medical records) from the charts of the randomly sampled residents.

Reformatting of the questionnaires was not possible due to time constraints, complicated by the fact that revised forms would necessitate revised documentation of the scoring procedures. While the present versions are the best survey materials available for the purpose, our experience with them should serve as the basis for considerable improvements.

Section (b): Review of Present Regulatory Practices

In order to begin our assessment of the feasibility of im lementing the quality evaluation system in a regulatory framework, we contacted the departments of public health of 49 states requesting their written descriptions of regulatory standards, licensing procedures, inspection protocols, and medical review (patient assessment) procedures. Illinois was excluded from this review because we were already quite familiar with its procedures; the quality evaluation system has, in fact, been designed to some extent with a view toward a first trial implementation in Illinois

because of that state's leadership in the use of management information system principles in long-term care licensing and certification. Thirty-four states (69 per cent) responded to our request for information. These materials were received during November and December 1972, and should be understood as being current at that time. It should be emphasized that they allowed for, and we were prepared to undertake, only the most preliminary kind of feasibility study. Our recommendations for further work in this area are included in Section (d).

Responses were searched for information on methods of license renewal, type and frequency of inspections, type and frequency of patient assessments (medical review), and methods of data storage and retrieval. These variables all affect the capability of a state agency to perform quality surveys within the framework of its existing practices in obvious ways. The single most important consideration, of course, is availability of surveyor staff, administrative, and data processing resources. The findings that follow do not include our knowledge of the Illinois system.

Information on licensing procedures and frequency of licensing inspections was provided by 29 states. Twenty-seven of these (93 per cent) renew licenses annually, the other two biennially. Licensure of newly constructed facilities requires an inspection in virtually all of these states, but license renewal involves a compulsory inspection in only 7 (about 24 per cent). An additional 3 states (10 per cent) require a fire safety inspection only along with a report. In 4 states (14 per cent), an optional inspection is possible following a mandatory application or report. The remaining 15 states (52 per cent) apparently renew facility licenses without an inspection, merely on the basis of an application or report.

The significance of this finding is its implications regarding the gross level of effort presently devoted to facility inspection surveys. For a state not now routinely reviewing compliance with regulatory standards on site, implementation of

a quality evaluation survey system would be a major undertaking, especially in terms of surveyor manpower. It should be noted that any error in our analysis would tend to underestimate the total amount of inspection activity, since we relied exclusively on material provided by state agencies in response to a fairly general request.

Information on medical review procedures (direct patient assessment) was found in the materials from 21 states. Two (10 per cent) stated they had no medical review procedures. Five states sent copies of the federal Medicaid questionnaire with no specific mention of administrative procedures. The remaining 14 states sketched out their programs in varying amounts of detail. Procedures vary considerably in the extent to which they are coordinated with facility licensing and inspection procedures and are the responsibility of the same or different agencies. Fourteen states (41 per cent of the total responding), also made some mention of requirements for utilization review programs.

The vagueness of this information makes it less useful than the information on facility inspections. It does appear, however, that programs for in-person review of long-term care residents are at best amorphous in manyystates. The implication of this possibility for implementation of the quality evaluation system is similar to that drawn above: systematic review of samples of patients, especially when they need to be coordinated administratively with facility surveys, could represent a substantial increase in level of effort in some states. It should be noted in this regard that the overlap in purpose between our Patient Review procedure and the medical review mandated by Medicaid is very small when compared with that between our Facility Survey and measurement of compliance with regulations. Thus the implications of present medical review practices are quite limited.

The final variable studied was the storing of facility and patient review data. Unfortunately, nothing can be concluded from what was made available by the 34

states. Occasional mention was found of retention of patient records required of the facility i.e., the state requires the home to hold patient records for a given period subsequent to death or discharge. No state made explicit reference to a data storage and retrieval system similar to that developed by the Illinois Department of Public Health (IDPH) in 1971 (St. John et al, 1973). IDPH personnel are, however, awareoof interest in such development efforts in several places. Apparently Michigan has recently implemented some automated data processing of Medicare (ECF) survey data.

In addition to this brief review of current state practices, we looked carefully at Medicare and Medicaid certification requirements for long-term care facilities as part of the process of assembling our initial data base, with two related goals. First, we were required to take Medicare standards into account in developing the quality construct. Second, we were interested in the relationship between the quality evaluation system and measurement of compliance with regulatory standards. Our conclusions are documented in the detailed memorandum included as Appendix A. In general, the initial data base from which the quality construct was developed included some measure of all but scattered process criteria covered by Medicare, while it did not include data on a larger number of structural criteria.

Section (c): Information Systems and Monitoring

The quality construct as outlined in the previous chapter was conceived as a component of an information system for long-term care evaluation. The automated system now opera ional in Illinois, described by St. John et al (1973), is the basis for this conception of a quality monitoring system. Further development of the system, beyond the form in which it now exists, is dependent on its integration into an information system like that developed by IDPH. The reasons for this

will become evident in the following discussion.

In its present form, the quality construct can be used to analyze the strengths and weaknesses of individual facilities and the patterns of needs and adequacy of placement of individual residents. Each such analysis will be based on a set of data on the facility collected at one point in time and on a random sample of its residents. In itself this analytic capability is a long step toward a meaningful and useful evaluation system. When this essentially static evaluation procedure is made part of a dynamic monitoring system for the ongoing evaluation of care over time, yet another long step will have been taken. This distinction between an evaluation tool and a monitoring system is the central concept underlying the specific points that follow.

The essential asset of incorporating the quality construct into a dynamic information system is maintenance of facility and resident data files. Ability to store and retrieve evaluation data would make possible several valuable manipulations:

(1) Aggregation of patient data across residents in the same facility reviewed at different points in time, allowing satisfaction indices to be computed on the basis of increasingly large samples of the patients in a facility. This capability is subject to time constraints, however, determined by the rates at which facility and patient characteristics change and by turnover of residents within facilities.

(2) Updating of data files for both patients and facilities to allow for monitoring changes in patient status and the improvement or deterioration over time of the quality fo care delivered by each facility.

(3) Periodic updating of the parameters used for scoring to take into account changing conditions in the health care industry. These parameters include distribution-dependent norms for item scores and cut-off points for matching scores.

(4) Analysis of survey data to determine whether quality scores vary systematical with level of care, size, location, ownership, costs and other structural factors. This analysis could have direct policy implications in terms of where state-supported patients are placed and whether incentives are offered to the long-term care industry to design facilities of certain types.

The ability to retrieve facility data will also allow the development of a system for placing individuals in facilities most satisfactory for meeting their needs. This would involve evaluating the level of need of the individual using the patient review instrument and then computing matching scores for this individual in a set of target facilities, chosen subject to constraints of geography, source of funds and other factors. To accomplish this, facility profiles for the target facilities would be retrieved from the data bank, and these scores would be used to compute matching scores for the individual in question. The system would then search for the most appropriate home or subset of homes for placing this patient. (Most appropriate would probably best be defined as the facility which maximizes the lowest of the set of matching scores for this patient). Without the data retrieval component of the information system such a patient placement system would be extremely difficult to implement.

Finally, incorporation into an ongoing monitoring system would make possible a reduction in length of individual home surveys through the use of review instruments composed of subsets of items randomly selected fromthe comprehensive data base of items developed in this project. Since, in an ongoing monitoring system, homes would be reviewed periodically - four times annually in the Illinois System, a cumulative evaluation of homes based on the complete data base of items would still be possible. Such an approach would reduce the possibility of home operators becoming too familiar with the items being monitored and features being rewarded, and consequently making adjustments accordingly, thus causing emphasis

to be placed on the importance of the indicators of the attributes of quality of care rather than the attributes themselves. Through random selection (from within criterion groupings) the effects of this problem could be minimized. A second advantage would be that surveyors would not be presented repeatedly with a single set of items to review, minimizing the likelihood of mechanical "role" responses. The present evaluation system could easily be modified to incorporate such an approach if it were to prove desirable.

Section (d): Recommendations

The quality evaluation system that has been developed has two conceptual features that represent a departure from other review systems in the long-term care field. First, it evaluates quality through assessment of care delivery as a process rather than assessment of structural preconditions for outcome. Second, the system includes measurements of the correspondence or "match" between characteristics of the facility and individual residents as an indicator of the appropriateness of placement. The automated system now in use in Illinois uses patient assessment as a mechanism for updating reimbursement schedules and placement as regards sheltered, intermediate and skilled levels of care; it has not yet been used to evaluate appropriateness of placement in more detail, for example, in terms of the patient's relative medical and psycho-social needs.

This introduction of new concepts raises important, although resolvable, questions about implementation of the system by State licensing and regulatory agencies. Since the initial motivation for the present project was the government's desire to upgrade the substance of State regulatory activities in the long-term care field, the next logical step must be determination of the feasibility of implementation as a regulatory tool. Issues relating to implementation can be organized under three headings:

(1) System Adaptation to the Regulatory Environment. Questions relating to the mechanics of expanding the system into a dynamic monitoring system through aggregation of data over time, adapting the system to different levels of care, and adapting patient review for initial screening and placement are among the most important to be addressed in this general category.

(2) Validation of the Instrument Under Realistic Conditions. This should require reliability experiments as well as validity studies both internal, i.e. assessment of scale validity, and external through validation of scale results against a panel of "experts".

(3) Feasibility Analysis. In this general category questions relating "to administrative and policy feasibility", that is resource needs, acceptance of process evaluation in a regulatory environment, and possible legislative barriers to measurement on criteria other than direct compliance with standards must be addressed here. A second general area to be studied would address the usefulness of data such as quality scores in regulatory decision-making, that is, can reimbursement ever be tied to quality scores, should there be criteria for passing or failing on quality scales?

These and other implementation questions can best be addressed in a trail implementation by a State government within the context of its regular licensing activities. For example, the new quality instruments might be administered by State inspector personnel in a random sample of a State's licensed facilities in conjunction with regular home inspections. Such as approach would yield the necessary data to study the various implementation questions raised above.

A second set of issues regarding the wider scaled implementation of the quality survey by other states could perhaps best be done through a survey of

state health departments focusing on state resources for undertaking this kind of quality assessment on a routine basis, as well as on the regulatory environment within which the survey instrument would be used. Both the indepth trial implementation within one state and the assessment of possible implementation problems across states appear important next steps in the further assessment of the utility of the instruments that have been devised.

II. DRAFT SURVEYOR'S MANUAL

CONTENTS

Section		Page
Class Schedule and Reading List for Surveyor Training		II-3
General Survey Procedures		II-9
Facility Survey Questionnaires		II-11
I. Administrator's Report	II-11	
II. Surveyor's Observations	II-20	
III. Staff Interview	II-52	
IV. Staff Survey	II-64	
Facility Item Specifications		II-69
Patient Review Questionnaires		II-82
I. Resident Interview	II-82	
II. Medical Record Information	II-99	
III. Staff Interview	II-105	
Patient Item Specifications		II-120

CLASS SCHEDULE AND READING LIST FOR SURVEYOR TRAINING

DAY 1 8-4:30

A. Overview of Project

B. Task Description and Plans for Field Work

C. Distribution and Reading Materials

D. Begin Literature Review

E. Homework: Reading 1 through 6 (Reading List Attached)

DAY 2 8-4:30

A. Introduction to Data Collection Schedules

B. Discussion and Questions Re:

   (1) The Protocols

   (2) Reading 1 through 6

C. The Facility Survey - Section II

   (1) Overview - How Humans Perceive Their Environment

   (2) Specific Techniques

D. Practice Session with Facility Survey Section II

   (1) Survey of One Unit of a Facility

   (2) Discussion and Questions

E. Homework: Reading 7 and 8

DAY 3 8-4:30

A. Discussion and Question Re:

   (1) The Readings

   (2) The Facility Survey Section II

B. Patient Review, Section I

(1) Overview - The Aging Process

(2) Specific Techniques

C. Practice Session Resident Interview I

(1) Role Play

(2) Discussion and Questions

D. Techniques for Random Sampling

E. Patient Review Instruments Sections II and III

F. Homework: Reading 9, 10, and 11

DAY 4 8-4:30

A. Discussion and Question Re:

(1) The Patient Review Instruments

(2) Reading to Date

B. Practice Session Residents Interview

(1) Role Playing

(2) Discussion and Questions

C. Practice Session Patient Review Section II

(1) Review of Actual Charts

(2) Discussion and Questions

D. Practice Session Patient Review Section III

(1) Role Play

(2) Discussion and Questions

E. Homework: Readings 12, 13, and 14

DAY 5 8-4:30

A. Discussion and Questions

(1) The Patient Review Instrument

(2) The Reading to Date

B. The Facility Survey Sections I, II, III, IV

(1) Overview

(2) Specific Techniques

C. Visit to Inhalation Therapy Department (May omit if staff knowledgeable)

(1) To Provide an Opportunity to Reorient Field Staff to this Equipment

(2) To Provide and Opportunity to View the Newly Developed Equipment

D. The Facility Survey Section III

(1) Role Play

(2) Discussion and Questions

E. Homework: Continue with Reading as Previously Assigned

DAY 6 8-4:30

A. Discussion and Questions

(1) The Five Previous Days

(2) The Reading to Date

B. Review

(1) The Patient Review Sections I, II, III

(2) The Facility Survey Sections I, II, III, IV

C. Visit to Nearby Long-Term Care Facility to Practice

(1) Facility Survey Sections I and II

(2) Patient Review Section II

D. Homework: Continue with Assigned Readings

DAY 7 8-4:30

Visit to a Nearby Long-Term Care Facility to Practice

A. A.M.

Each of the Survey Staff to Interview One Resident

Observation and Critique by Field Supervisors and Peers

B. P.M. Each of the Survey Staff to Interview One of the Nursing Staff Caring for the Specific Resident Interviewed in the A.M.

C. Homework: Continue with Assigned Readings

DAY 8 8-4:30

A. Discussion and Questions Re:

a. The Interviewing Experience, Item by Item

b. Editing

c. The Reading to Date

B. Visit to a Nearby Long-Term Facility to Practice the Facility Survey Section II, III, and IV

Observation and Critique by Field Supervisor

C. Prepare for Practice Survey Using the Suggested Time Frame-Work for the Survey

D. Homework: Continue with the Assigned Reading

DAY 9 9-5:00 Practice Survey

DAY 10 8-4:30

A. Debriefing Session Re: Practice Survey

B. Discussion of Problems Uncovered During the Practice Session

C. Preparation for Field Work Survey

READING LIST

Reading Number

1. Winds of Change, Report on a conference on activity programs in long-term care institutions, American Hospital Association, 840 N. Lake Shore Drive, Chicago, Illinois 60611, 1971.

2. "Nursing Home Surveyors", Health Services and Mental Health Administration Health Reports, Vol. 86, No. 2, February, 1972 pp. 114-120.

3. Standards of Nursing Practice, Division on Geriatric Nursing Practice, American Nurses' Association, 2420 Pershing Rd. Kansas City, Missouri 64105, 1971.

4. Williams, S.R., Nutrition and Diet Therapy, St. Louis, C.V. Mosby Co., 1973, Chapter 12.

5. Principles of Environmental Sanitation, Syllabus from Columbia University School of Public Health and Administrative Medicine, New York, New York, 1968.

6. Feldman, J., "Suggestions for an Environment to be known as the Johnston R. Bowman Health Park," Unpublished paper, 1973.

7. Minimum Standards, Rules and Regulations Long-Term Care Facilities, Illinois State Department of Public Health, Springfield, Illinois, 1972.

8A. Interviewing and Patient Care, A.J. Enelow and S.N. Swisher, New York: Oxford University Press, 1972, Chapters 3, 6, and 10.

B. The Helping Interview, A. Benjamin, Boston: Houghton Mifflin Co., 1969, Chapters 1, 4, and 6.

C. Abnormal Psychology: Current Perspectives, R. Holm: Editor Del Mar: CRM Books, 1972, Chapter 23

D. Clinical Psychology, N.D. Sundberg and L.E. Tyler, New York: Appleton Century Crafts, 1962, Chapter 5.

9. Bloom, M. et.al. "Interviewing the Ill Aged", The Gerontological, Vol. 2, No. 4, Part One, Winter, 1971, pp. 292-300.

10. Stone, V. "Give the Older Person Time", American Journal of Nursing, Vol. 69, No. 10, October 1969, pp. 2124-2127.

11. A List of Common Tranquilizers compiled from the Physicians Desk Reference, Medical Economics , Cradell, New Jersey, 1973.

Reading Number

12. Training Manual for a Rehabilitation Program in a Nursing Home and an Extended Care Facility, Illinois State Department of Public Health, Rehabilitation Education Service, Springfield, Illinois 1967.

13. Activity Directors Guide, Illinois State Department of Public Health, Rehabilitation Education Service, Springfield, Illinois 1966.

14. Guide for Assessing Nursing Services in Long-Term Care Facilities, National League for Nursing, 10 Columbus Circle, New York, New York, 1972.

GENERAL SURVEY PROCEDURES

MORNING

- Arrive at the facility with several sharp #2 pencils with good erasers.
- Obtain staff and resident rosters.
- Draw random samples.
- Take tour with liaison person and ask necessary questions.
- Request policy books, personnel file, etc. as indicated.
- While on tour distribute staff survey questions (Facility IV) and confirm the time arranged for the staff interviews (Facility III).
- Do patient reviews.
- Complete resident interviews before proceeding with the chart and staff interview.
- Go to the kitchen as they are serving the noon meal.

AFTERNOON

- Attend for a brief time any in-house activity program that is scheduled for that day, if possible.
- Do facility survey in the late p.m.
- Close to the end of the day shift contact the people who have the staff survey questions form (Facility IV) and collect the completed forms.
- Before leaving the facility check to see that you have a complete set of schedules and including the administrator's report.
- Editing can occur before you leave and/or at home. It is urgent, however, that it be done the same day as the survey.
- Return completed protocols as advised during the training sessions.

This is a suggested format only, but it has been tested in more than twenty agencies with excellent results. Variation can be made to meet individual preferences and unforseen circumstances, but the project staff does advise this general format as seemingly the most efficient for the amount of time available to accomplish the survey tasks.

Additional discussion of the survey procedures, including facility orientation, is found in Chapter 3 of A Quality Evaluation System for Long-Term Care.

OMB NO.	68-S72092
APPROVAL EXPIRES	11-31-73

Rush-Presbyterian-St. Luke's Medical Center

FACILITY SURVEY

SECTION I: ADMINISTRATOR'S REPORT

Facility _____ [ ][ ] Col. 1-2

Date _____ [ ][ ] [ ][ ] 5-8
month day

[0][1] 10-11
card

NOTE TO THE ADMINISTRATOR

This form is to be filled out by you or your designee. You may need to speak to nursing staff or other personnel about some of the items. Answer in terms of the day of the survey as indicated above. Please keep track of the amount of time you spend working on the form so you can answer the last question.

Some questions call for numerical answers--please write these in the boxes on the form, one digit per box. Use leading zeroes so that each box has a figure in it. Other questions call for you to circle a number corresponding to the most appropriate answer for your facility.

All information is confidential to this research project. It cannot be released to government agencies. The success of the project, and thus of your facility's contribution to development of new survey methods, depends on the accuracy of your answers.

The project's surveyors will be glad to answer any questions you may have about this questionnaire.

Do not write in this column

1. Beds licensed at skilled level. ☐☐☐ 13-15/999

2. Beds licensed at intermediate (ICF I) level ☐☐☐ 16-18/999

3. Beds licensed at sheltered (ICF II) level ☐☐☐ 19-21/999

4. Licensed bed capacity (must equal total of the above) ☐☐☐ 22-24/999

---

5. Year facility originally constructed (answer in terms of oldest main section) ☐☐☐☐ 25-28/9999

6. Year of most recent major remodeling ☐☐☐☐ 29-32/9999

7. Total floor area (in 1000 square feet) of the facility ☐☐☐ X1000 33-35/999

8. Total floor area (in 1000 square feet) used for bedroom/dormitory purposes ☐☐☐ X1000 36-38/999

9. Are your answers to Q. 7-8:
   Based on actual knowledge ---------- 1
   Just your best estimate ---------- 2 39/9

Number of beds located

10. One to a room ☐☐☐ 40-42/999

11. Two to a room ☐☐☐ 43-45/999

12. More than two to a room ☐☐☐ 46-48/999

TOTAL OF Q. 10-12 SHOULD EQUAL Q. 4.

---

13. Do any of the residents (patients) here have private kitchen facilities? (This would include at least a sink, stove, and refrigerator.)

   Yes ---------- 2 49/9

   No ---------- 1

Do the facility's rules allow residents to:

	Yes	No	
14. Have their own curtains in their bedrooms or dorms?	2	1	50/9

	Yes	No	Do not write in this column
15. Keep food in their bedrooms or dorms?	2	1	51/9
16. Have their own refrigerators?	2	1	52/9
17. Keep birds or fish as pets?	2	1	53/9
18. Keep cats or dogs as pets?	2	1	54/9
19. Smoke in their bedrooms or dormitories?	2	1	55/9
20. Do laundry in their rooms- e.g., wash out socks or underwear?	2	1	56/9

21. Do the rules allow them to visit with other residents of the opposite sex?

Yes, at any time	3	57/9
Yes, during certain hours	2	
No	1	

Do the rules require residents to:

	Yes	No	
22. Sit in assigned seats at meal times?	1	2	58/9
23. Wear any special attire at meals (e.g., coat and tie), aside from simply being dressed?	1	2	59/9

24. Are any of the residents allowed to keep and administer to themselves their own medications?

Yes	1	60/9
No	2	

25. How many hours per day are designated as visiting hours? (If the hours vary for different days of the week, answer in terms of the average weekday.)

		61-62/99
Hours		

		Yes	No	Do not write in this column
26.	Aside from visiting hours, are there <u>any</u> <u>other</u> rules regarding visiting - such as restriction on visits by young children, or on the number of visitors allowed at one time?	2	1	63/9
27.	Today's census: Total			64-66/999
28.	Skilled			67-69/999
29.	Intermediate (ICF-I)			70-72/999
30.	Sheltered (ICF-II)			73-75/999
	TOTAL OF Q. 28-30 SHOULD EQUAL Q. 27.			
31.	Number of ambulatory patients			76-78/999
				Repeat col. 1-8 from card 01 10-11/02
32.	Number of patients needing assistance of personnel to ambulate			13-15/999
33.	Number of patients allowed bed to chair privileges (at least part of day)			16-18/999
34.	Number of patients at complete bed rest (not up at all)			19-21/999
	TOTAL OF Q. 31-34 SHOULD EQUAL CENSUS (Q. 27)			
35.	Number of patients completely able to feed self			22-24/999
36.	Number of patients needing partial assistance at meals			25-27/999
37.	Number of patients totally unable to feed self			28-30/999
	TOTAL OF Q. 35-37 SHOULD EQUAL CENSUS (Q. 27)			
38.	Number of continent patients			31-33/999
39.	Number of incontinent patients			34-36/999
40.	Number of patients with indwelling catheters			37-39/999
	TOTAL OF Q. 38-40 SHOULD EQUAL CENSUS (Q. 27)			
41.	Number of acutely ill patients			40-42/999
42.	Number of patients receiving physical therapy			43-45/999

Do not write in this column

43. During the three (3) calendar months preceeding this one, how many residents were discharged from this facility to a non-institutional setting - for example, to his/her family, a boarding home, or foster home? (Do not include residents discharged to another hospital, long-term facility, or other institution. Note: If today is June 22, answer in terms of March 1 to May 31.) ☐☐☐ 46-48/999

44. During the three (3) calendar months preceeding this one, how many residents expired while being carried on the census of the facility? ☐☐☐ 49-51/999

Does the facility have:	Yes	No	
45. An organized medical staff (i.e., a group of licensed physicians employed by the facility organized with by-laws and rules and regulations governing patient care)?	2	1	52/9
46. A formal agreement with one or more licensed physicians to provide emergency services on an on-call basis?	2	1	53/9
47. A formal agreement for emergency pharmaceutical services to be available at night?	2	1	54/9
48. A formal agreement for dental services with one or more licensed dentists?	2	1	55/9
49. A formal agreement with a podiatrist for services at the request of the attending physician?	2	1	56/9
50. A formal agreement with qualified outside organizations and/or qualified technicians employed by the facility, for laboratory and radiology services as ordered by the attending physician?	2	1	57/9
51. A formal agreement with one or more clergymen to visit patients and/or conduct services in the facility?	2	1	58/9

On what basis are the following employed by the facility?(Note: Full-time = 35 hours per week or more; part-time = less than 35 hours per week; consultant - on a consulting basis with a formal agreement for services.)

	Full-time	Part-time	Consultant	Not At All	
52. Registered pharmacist	4	3	2	1	59/9
53. Trained and qualified physical therapist	4	3	2	1	60/9
54. Trained and qualified occupational and/or recreational therapist	4	3	2	1	61/9

	Full-time	Part-time	Consultant	Not At All	Do not write in this column
55. Trained and qualified speech pathologist	4	3	2	1	62/9
56. Trained and qualified audiologist	4	3	2	1	63/9
57. Trained and qualified social worker	4	3	2	1	64/9
58. Trained and qualified medical record librarian	4	3	2	1	65/9

Note: In Q.59-62 "person in charge" means someone present in the facility and on duty--not someone on call.

	Licensed RN	Licensed LPN	Other Personnel	
59. The person regularly in charge of nursing services on the afternoon shift is:	3	2	1	66/9
60. The person normally in charge on the afternoon shift on weekends and holidays is:	3	2	1	67/9
61. The person regularly in charge on the midnight shift is:	3	2	1	68/9
62. The person normally in charge on the midnight shift on weekends and holidays is:	3	2	1	69/9
63. The person in charge of each separate patient care unit (ward, floor, or wing), with round-the-clock responsibility for the unit is: Note: If the facility is not subdivided into separate patient care units, answer Q. 63 in terms of the facility as a whole.	3	2	1	70/9

Note: Q. 64-71 (see next page) refer to nursing service personnel over a one-week period and combining all three shifts. To calculate the full-time equivalent (FTE) of part-time personnel, add the total number of hours worked in an average week by all part-time staff in a given job classification (e.g., LPN), and divide by the number of hours in your standard work week. Round fractions to the nearest whole FTE.

Do not write in this column

Licensed Registered Nurses (RNs)

64. A. Number of full-time RNs ☐☐☐ 71-73/999

B. _____part-time hours per week ÷ standard work week = _____ FTE

65. Total FTE (sum of A and B above) ☐☐☐ 74-76/999

Licensed Practical Nurses (LPNs)

66. A. Number of full-time LPNs ☐☐☐ 77-79/999

B. _____part-time hours per week ÷ standard work week = _____FTE

Repeat col. 1-8 from card 01 10-11/03

67. Total FTE (sum of A and B above) ☐☐☐ 13-15/999

Nurse aides, orderlies, attendants

68. A. Number of full-time nurse aides, orderlies, attendants ☐☐☐ 16-18/999

B. _____part-time hours per week ÷ standard work week = _____FTE

69. Total FTE (sum of A and B above) ☐☐☐ 19-21/999

Other nursing service personnel (e.g., ward clerks, special duty nurses, sitters)

70. A. Number of full-time nursing service personnel ☐☐☐ 22-24/999

B. _____part-time hours per week ÷ standard work week = _____FTE

71. Total FTE (sum of A and B above) ☐☐☐ 25-27/999

Note: Your bookkeeper may be the best source of the information in Q. 72-73.

72. How many physicians saw residents (patients) in the calendar month preceeding this one? ☐☐ 28-29/99

73. In the calendar month preceeding this one, how many residents were seen by physicians? ☐☐☐ 30-32/999

74. Are your answers to Q. 72-73

Based on actual knowledge----- 1

Just your best estimate------- 2 33/9

Do not write in this column

75. How long has the facility been under its present ownership? ☐☐ Years — 34-35/99

76. How long was it owned by the immediately preceeding ownership? (If no previous owners, answer "00") ☐☐ Years — 36-37/99

77. How long have you been administrator of this facility: (Answer in months)
_____years x 12 + _____months = ☐☐☐ Months — 38-40/99

78. How long did the immediately preceeding administrator hold the position?
_____years x 12 + _____months = ☐☐☐ — 41-43/999

---

79. Are you licensed by the Illinois Department of Education and Registration as a nursing home administrator?

Yes ----- 2
No ------ 1 — 44/9

80. Which of the following best describes your educational background?

Not a high school graduate --------- 1
High school graduate ---------- 2
Some college and/or technical training ----- 3
Bachelor's degree ---------- 4
Graduate work ---------- 5 — 45/9

81. Which of the following best describes the Director of Nursing's educational background?

Not a graduate nurse ---------- 1
Diploma nursing program ---------- 2
Baccalaureate nursing program ------ 3
Graduate training ---------- 4 — 46/9

Does the facility currently belong to:

	Yes	No	
82. American Nursing Home Association (ANHA) and/or Illinois Nursing Home Association and/or Chicago Metropolitan Nursing Home Association	2	1	47/9
83. American Association of Homes for the Aged	2	1	48/9
84. Any other organization or association (Please list)	2	1	49/9

_____

_____

	Yes	No	Do not write in this column
Does the facility currently have:			
85. An IDPH-approved activities program (sheltered care)	2	1	50/9
86. An IDPH-approved rehabilitation nursing program (intermediate and skilled care)	2	1	51/9
87. An IDPH-approved social rehabilitation program	2	1	52/9

88. Has the facility ever applied for certification as an Extended Care Facility (ECF) under Medicare? (If so, are you currently certified as an ECF?)

Yes, now certified	3	53/9
Yes, not now certified	2	
No	1	

89. Has the facility ever been surveyed by the Joint Commission on Accreditation of Hospitals (JCAH) for accreditation as an extended care facility, nursing care facility, or resident care facility (Categories II, III, IV)? (If so, are you currently accredited by JCAH?)

Yes, accredited	3	54/9
Yes, not accredited	2	
No	1	

How much time did you and your staff have to spend today to complete this form? (This information will be useful in making subsequent revisions.)

Thank you for your cooperation. Any comments you wish to make in the space below are welcome.

OMB NO.	68-S72092
APPROVAL EXPIRES	11-31-73

Rush-Presbyterian-St. Luke's Medical Center

FACILITY SURVEY

SECTION II: SURVEYOR'S OBSERVATIONS

Facility _____ [ ][ ] Col. 1-2

Date _____ [ ][ ][ ][ ] 5-8
month day

Surveyor ID [ ] [0][4] 9-11
card

A. INITIAL TOUR

To Be Noted On Arrival At The Facility:

90. Condition of building exterior (in this rating try not to be influenced by dirt and soot related to urban pollution; look at condition independently of location)

Dilapidated 1 13/9
Building is quite run-down, needing extensive repairs.

Some decay 2
Obvious need for some repair or maintenance. Paint may be blistered or peeling in spots. Some mortar or bricks chipped or cracked. Roofing torn or warped in spots; steps may be worn, cracked, or warped; windows may need new putty - some may be cracked. Building somewhat run-down but quite salvageable with some repair.

Good condition 3
Building is not new and may show some signs of deterioration or age upon close examination. Walls or trim or windows may be in some need of paint. Generally favorable appearance and condition.

Like new 4
Shows no signs of deterioration.

91. Size of facility's yard:

Extremely small or none 1 14/9
Too small for more than 2 chairs

Small 2
Large enough for a few chairs or benches, or a small garden

Moderate 3
Up to ½ block

Large 4
½ block or more

92. Attractiveness of yard:

Bare 1 15/9
(Few trees, flowers, benches, paths) and unkept

Bare but neat and tidy 2

Busy but unkept 3
Many trees, benches, paths, etc., but unkept and cluttered

Attractive 4
Many trees, flowers, etc., and well kept

RATINGS OF INDIVIDUAL AREAS:

		Q. No.	Area	Rating	
Types of floors:	1. Concrete	93.	Bedrooms/Dorms	1 2 3 4 5	16/9
	2. Ceramic tile, marble	94.	Halls	1 2 3 4 5	17/9
	3. Vinyl tile	95.	Lounges/Day rooms	1 2 3 4 5	18/9
	4. Linoleum	96.	Dining area	1 2 3 4 5	19/9
	5. Wood				
Carpeting:	1. Wall to wall	97.	Bedrooms/Dorms	1 2 3 4	20/9
	2. "Room-size" rugs (9X12, or full-length runner in hall)	98.	Halls	1 2 3 4	21/9
	3. Scatter rugs or area rugs	99.	Lounges/Day rooms	1 2 3 4	22/9
	4. No carpeting	100.	Dining area	1 2 3 4	23/9

	Q. No.	Area	Rating	
Cleanliness of Floors:				
4. Very clean: Obviously cleaned several times weekly and polished often. Very little dirt, if any, evident. "Hospital clean."	101.	Bedrooms/Dorms	1 2 3 4	24/9
3. Fairly clean: Obviously some concern for keeping floors clean, but not entirely successful. Some dirt in corners evident, many scuff marks, some dust, or very little polish evident. Floors appear cleaned more than once per week, but less than daily.	102.	Halls	1 2 3 4	25/9
2. Somewhat dirty: Floors may get a weekly once-over, but considerable dirt is evident. Floors are rarely polished. Floors "feel" dirty.	103.	Lounges/Day rooms	1 2 3 4	26/9
1. Very dirty: Caked-in dirt in corners. Looks as if not cleaned in weeks. Much litter, stains, dust, etc. "Flop-house" appearance.	104.	Dining Area	1 2 3 4	27/9
Condition of Floors (aside from cleanliness):				
4. Like new: Floor apparently applied in recent years and is well-kept.	105.	Bedrooms/Dorms	1 2 3 4	28/9
3. Good condition: Floor not new, but in good condition. Little evidence of wear or deterioration. Close examination may reveal worn spots or general scuffing, but not very evident. May be slightly worn in areas of heavy travel (e.g., in doorways), but not much elsewhere.	106.	Halls	1 2 3 4	29/9
2. Moderately deteriorated: deterioration or wear is evident without close examination. Many worn spots, cracks, or much scuffing apparent. Tile or linoleum may be warped, wood may be worn down in spots.	107.	Lounges/Day room	1 2 3 4	30/9

	Q. No.	Area	Rating	
1. Badly deteriorated: Badly in need of repair. Torn edges of linoleum, gouges in concrete, loose strings or holes in carpets, or cracks in wood. Might be somewhat dangerous for walking.	108.	Dining Area	1 2 3 4	31/9
Cleanliness of walls and ceilings:				
4. Very clean: spotless - "hospital clean". Obviously considerable care is taken to keep walls and ceilings clean.	109.	Bedrooms/Dorms	1 2 3 4	32/9
3. Fairly clean: Obviously cleaned regularly, but may be some accumulated dust, fingerprints, or soot evident on close examination.	110.	Halls	1 2 3 4	33/9
2. Somewhat dirty: considerable dust, soot, scuff marks, and/or some stains evident. May be cobwebs in corners. Seems to be cleaned regularly, but only after long intervals. Needs cleaning at present.	111.	Lounges/Day room	1 2 3 4	34/9
1. Very dirty: needs a major cleaning. Obviously hasn't been cleaned in a considerable length of time. Dirty to the touch, much dust, grime, and staining evident. "Flop-house" appearance.	112.	Dining Area	1 2 3 4	35/9
Conditions of walls and ceilings:				
4. Like new: As if applied in last five years.	113.	Bedrooms/Dorms	1 2 3 4	36/9
3. Good condition: Not new, but well-kept-up. Some hairline cracks or warping may be evident on close examination. May be some marks where furniture hits walls.	114.	Halls	1 2 3 4	37/9
2. Moderately deteriorated: Some cracks, gouges, or warping apparent without close examination. Some peeling of paint or paint very faded.	115.	Lounges/Day room	1 2 3 4	38/9

	Q. No.	Area	Rating	
1. Badly deteriorated: Badly in need of repair. Large cracks or holes. Some plaster has fallen. Appears as if no maintenance has been done in years.	116.	Dining Area	1 2 3 4	39/9
Cleanliness of furniture:				
3. Very clean: Spotless, highly polished. Upholstery appears new or recently shampooed or refinished. Practically no dust evident, no water rings, cigarette burns, or stains.	117.	Bedrooms/Dorms	1 2 3	40/9
2. Fairly clean: Some dust evident, a few water rings, stains or ashes evident as if not cleaned for a few days or a week. May be some grime in creases of chairs.	118.	Halls	1 2 3	41/9
1. Quite dirty: Obviously in need of cleaning, dusting, polish, and/or shampooing. Most persons would consider the condition of the furnishings rather untidy for a home. Furniture may be stained, somewhat greasy, or very dusty.	119.	Lounge/Day room	1 2 3	42/9
	120.	Dining Area	1 2 3	43/9
Condition of furniture (aside from cleanliness):				
4. Like-new condition: Seems less than three years old and in like-new condition, as if in a relatively new house or hotel.	121.	Bedrooms/Dorms	1 2 3 4	44/9
3. Good condition: Does not appear new by any means, but in good condition, generally. No holes or tears, scratches or gouges, but, e.g., arms of chairs may be slightly worn or tables slightly marred or with hair-line scratches.	122.	Halls	1 2 3 4	45/9
2. Moderately deteriorated: Some small tears or holes in upholstery evident or tables scratched and marred; cigarette burns, etc., evident. Furniture, in general, has seen better days but is not dilapidated.	123.	Lounges/Day room	1 2 3 4	46/9

	Q. No.	Area	Rating	
1. Badly deteriorated: Furniture in very poor repair. Requires re-upholstering or could be scrapped. Many holes, burns, tears, or scratches.	124.	Dining Area	1 2 3 4	47/9

Neatness-Orderliness/Clutter:

3. Neat: Area is very neat, orderly, or linear, as in a Danish modern home or hotel room; or like a hospital waiting room.	125.	Bedrooms/Dorms	1 2 3	48/9
2. Some disarray: Area looks lived-in. Some clutter or disarray; some furniture is scattered or not aligned, some odds and ends lying about. but generally reasonably neat.	126.	Halls	1 2 3	49/9
1. Much clutter: As in a student's room, a child's room, or an attic. Area is somewhat disorganized, dense, disarrayed, non-linear.	127.	Lounges/Day room	1 2 3	50/9
	128.	Dining Area	1 2 3	51/9

View from Windows - Appeal:

3. Attractive: some windows overlook quite pleasant scenes, such as a lake, park, boats, hills, interesting architecture, attractive city skyline, etc.	129.	Bedrooms/Dorms	1 2 3	52/9
2. No appeal, but not unattractive: such as a reasonably "nice" residential area.	130.	Halls	1 2 3	53/9
1. Unattractive: windows may overlook a slum, blank adjacent walls, dingy old homes, relatively deserted streets, refuse, etc. Observer may feel tendency to avoid looking outside.	131.	Lounges/Day room	1 2 3	54/9
	132.	Dining Area	1 2 3	55/9

	Q. No.	Area	Rating	
View from windows - Interest:				
3. Interesting: view overlooks things of interest, especially things happening, such as children playing, traffic, etc. One's interest might be captured for several minutes by the view of the outside.	133.	Bedrooms/Dorms	1 2 3	56/9
2. Some interest: one might be drawn to look outside only occasionally or for brief periods, e.g., to watch people or traffic passing. Outside scenes or happenings may have only mild, brief, or occasional interest.	134.	Halls	1 2 3	57/9
1. Lacks interest: view is dull or only rarely captures interest. Looking outside would quickly lead to boredom.	135.	Lounges/Day room	1 2 3	58/9
	136.	Dining Area	1 2 3	59/9
Level of illumination (from any source, natural or artificial):				
3. Ample lightnng: rooms are brightly illuminated, making reading easy in any part of the room, even for those with impaired vision.	137.	Bedrooms/Dorms	1 2 3	60/9
2. Barely adequate: lighting may be uneven, making reading possible only in certain areas of the room. E.g., reading is possible near window or reading lamp, but difficult elsewhere.	138.	Halls	1 2 3	61/9
1. Inadequate: lighting is very poor, with illumination very low in many areas of room. Few lamps available or give off little light; illumination from windows very low. Reading would be difficult in any area of room, even with normal vision.	139.	Lounges/Day room	1 2 3	62/9
	140.	Dining Area	1 2 3	63/9

	Q. No.	Area	Rating	
Odors:				
4. Fresh: environment has a pleasantly fresh odor or anything noticeably pleasant about the atmosphere.	141.	Bedrooms/Dorms	1 2 3 4	64/9
3. No odors: nothing noticeable about the atmosphere. Normal.	142.	Halls	1 2 3 4	65/9
2. Slightly objectionable: air is slightly tainted in some way. May seem slightly stale, close, musty, or may notice presence of slight cooking odors or smell of floor-cleaning compounds. Slightly objectionable odors apparent, but not too unpleasant.	143.	Lounges/Day room	1 2 3 4	66/9
1. Distinctly objectionable: unpleasant odors immediately apparent. Observer may feel anxious to leave because of odors. E.g., observer might find the prospect of having to eat in this atmosphere rather distasteful.	144.	Dining Area	1 2 3 4	67/9

BEDROOMS/DORMITORIES

145. Is there a mirror located in each bedroom or in a connecting bathroom?

Yes	2	68/9
No	1	

146. Is there a mirror in each lavatory?

Yes	2	69/9
No	1	

147. Is there proper storage, either in the bedside cabinet or in a separate cabinet in the bedroom or in a connecting bathroom, for individual equipment such as emesis basin, bedpan, urinal, and washbasin?

Yes	2	70/9
No	1	

Check off each of the following if they are provided for <u>each</u> bed:

a. At least 2 dresser drawers _____

b. Comfortable chair _____

c. Individual towel rack _____

d. Satisfactory reading light in working order over, or at the side of, the bed _____

e. Adequate closet, locker, or wardrobe space for hanging clothing--located in bedroom _____

f. Bedside stand with cabinet _____

148. Count the number of items checked and enter total ☐ 71/9

---

149. Variations in residents' sleeping rooms (attention should be paid to wall colors, colors of contents - <u>e.g.</u>, curtains, bedspreads, etc., shape of room, arrangement of furniture, size of room, decorations, type of furniture, window areas, etc.):

72/9

None 1
All rooms nearly identical, except for minor details, such as different color rug or curtains, or furniture arranged slightly differently, or some rooms slightly larger than others.

Little 2
Rooms quite similar, though some variation in shape, size, furniture arrangements, or number of occupants. Observer can see variation when looking for it, but not very striking.

Moderate 3
Rooms are distinct, but a general theme or style of decor runs through all rooms. Rooms very considerable, but obviously "belong in the same building."

Distinct 4
As if particular efforts made to ensure that the rooms vary considerably. Variation is on the order of, <u>e.g.</u>, one room may be Danish modern, next room provincial, etc..

150. Personalization of residents' rooms; 73/9

Little 1

Resident may have family pictures, medicine, etc. evident, but otherwise observer finds it difficult to feel that the room "belongs" to an individual. (Rating may apply as well to areas of multiple bed rooms).

Some 2

Residents may have many objects or furnishings which help individualize rooms, but rooms still rather similar. Observer may have some feeling of identification of the rooms with their occupants

High 3

Residents have obviously spent some time or energy personalizing their rooms. Personalization may be evident from pictures, books, notebooks, clothes lying about, plants and flowers, fishbowls, etc. as well as apparent personalization of furniture, rugs, curtains, and/or bedspread.

KITCHEN AND DINING AREAS

Rate the facility's food services in terms of the following criteria.

	Excellent	Good	Fair	Poor	
151. Dated current menu is posted and menus are kept on file for thirty days	4	3	2	1	74/9
152. Diets as posted meet the nutritional needs of the residents	4	3	2	1	75/9
153. Foods are prepared and served in a sanitary manner	4	3	2	1	76/9
154. Foods are prepared by methods which conserve nutritive value	4	3	2	1	77/9
155. Foods attractively served at proper temperatures	4	3	2	1	78/9
156. Foods served appear to be in a form appropriate to meet individual needs	4	3	2	1	79/9
157. Facility complies with "Rules and Regulations Pertaining to Sanitation of Food-Service Establishments" published by IDPH	4	3	2	1	80/9

Repeat col. 1-9
from card 04
10-11/05

	Excellent	Good	Fair	Poor	
158. There are adequate handwashing facilities in the dietary service area	4	3	2	1	13/9
159. A sufficient number of food service personnel is employed to meet the dietary services of the facility	4	3	2	1	14/9
160. Food service personnel appear neat, clean and appropriately attired	4	3	2	1	15/9
161. Food service personnel appear to practice hygienic food handling techniques	4	3	2	1	16/9
162. Food service personnel have periodic health examinations	4	3	2	1	17/9
163. All food service personnel have current food handlers cards	4	3	2	1	18/9

PHARMACY AND MEDICATION ROOMS

164. Does the facility maintain a pharmacy?

Yes	2	19/9
No	1	

165. Is there a bulk drug storage area?

Yes	2	20/9
No	1	

Rate the facility's pharmacy and medication services in terms of these criteria:

	Excellent	Good	Fair	Poor	
166. Facility provides storage for individually prescribed drugs only	4	3	2	1	21/9
167. Accurate records are maintained on stored drugs (name and quantity of medications received, dispensed and remaining)	4	3	2	1	22/9

	Excellent	Good	Fair	Poor	
168. Areas where medications are kept are locked	4	3	2	1	23/9
169. Only duly authorized persons have a key to drug storage areas	4	3	2	1	24/9
170. Poisons and medications for external use only are stored separately from other medications	4	3	2	1	25/9
171. External pharmaceuticals and poisons are kept under lock	4	3	2	1	26/9
172. Medications are properly labeled	4	3	2	1	27/9
173. An accurate narcotic record is kept	4	3	2	1	28/9
174. A narcotic count is taken daily	4	3	2	1	29/9
175. The control of narcotics is satisfactory	4	3	2	1	30/9
176. Medications are prescribed for one patient and are administered only to that patient	4	3	2	1	31/9
177. A physician's verbal order for medication is accepted only by licensed nursing personnel	4	3	2	1	32/9
178. Only licensed nurses administer medications	4	3	2	1	33/9

B. RECORDS AND POLICIES

PATIENT RECORDS

179. Is there a written patient care plan for each resident in the facility?

Yes, for all	4	34/9
Yes, for most	3	
Yes, for a few	2	
No	1	

180. Are the patient care plans easily accessible to all nursing service personnel?

Yes	2	35/9
No	1	

Answer the following questions on the basis of your review of the records and care plans done in the course of the four patient reviews you are doing as part of this survey. Of the four records, how many show evidence that:

	No. of Patients					
181. The patient care plan is developed and coordinated with the physician's recommendations for the resident.	0	1	2	3	4	36/9
182. Restorative nursing care is a part of each resident's patient care plan.	0	1	2	3	4	37/9
183. The patient care plans indicate the social/psychological needs of the resident and how to meet them.	0	1	2	3	4	38/9
184. The patient care plans include goals for rehabilitation and discharge (From Patient Review Q. 119).	0	1	2	3	4	39/9
185. The patient care plans indicate how the nursing care can best be accomplished.	0	1	2	3	4	40/9
186. The patient care plans indicate what methods are most successful and what modifications are necessary to attain the stated goals.	0	1	2	3	4	41/9
187. Patient care plans are reviewed and revised as needed.	0	1	2	3	4	42/9
188. Physician's progress notes are included in patient's record.	0	1	2	3	4	43/9
189. The physician's notations include an evaluation of the patient's rehabilitation potential and prognosis.	0	1	2	3	4	44/9
190. Progress notes indicate patient's condition.	0	1	2	3	4	45/9
191. Medications are ordered in writing by the attending physician.	0	1	2	3	4	46/9

		No. of Patients					
192.	The physician's verbal order for a medication is written and signed by the licensed nurse.	0	1	2	3	4	47/9
193.	Verbal orders are countersidgned by the attending physician within 48 hours.	0	1	2	3	4	48/9
194.	Physician's orders are kept current.	0	1	2	3	4	49/9
195.	All clinical entries in the record are dated and signed.	0	1	2	3	4	50/9
196.	Signed progress notes and/or orders indicate residents are seen at least monthly by physician.	0	1	2	3	4	51/9
197.	There is direct evidence that the resident's health status is reviewed once annually.	0	1	2	3	4	52/9
198.	There are written physician's orders for rehabilitation procedures and services.	0	1	2	3	4	53/9
199.	Rehabilitation service includes periodic re-evaluations by the physician.	0	1	2	3	4	54/9
200.	Rehabilitation service includes appropriate notations in the patient's record by therapists providing these services.	0	1	2	3	4	55/9
201.	These notations include a physical therapy record.	0	1	2	3	4	56/9
202.	They include an occupational therapy record.	0	1	2	3	4	57/9
203.	Physician's referrals are documented by Patient Referral Forms or by other written means.	0	1	2	3	4	58/9
204.	Consultants' reports are made part of the record.	0	1	2	3	4	59/9
205.	Dental reports are made part of the patient's record.	0	1	2	3	4	60/9
206.	Laboratory and X-ray reports are made part of the patient's record.	0	1	2	3	4	61/9
207.	A written social history is obtained and made part of the patient's record.	0	1	2	3	4	62/9
208.	Subsequent social service summaries are included in the record.	0	1	2	3	4	63/9
209.	Nursing notes are maintained.	0	1	2	3	4	64/9

		No. of Patients					
210.	These are pertinent and concise.	0	1	2	3	4	65/9
211.	They are current (most recent entry no more than one month old).	0	1	2	3	4	66/9
212.	They document rehabilitative treatment and patient's response to rehabilitation program.	0	1	2	3	4	67/9
213.	They document response to medications including untoward effects if any.	0	1	2	3	4	68/9
214.	They document reasons for ordering and using restraints (or reasons for ordering and using restraints are documented elsewhere in the record).	0	1	2	3	4	69/9

STAFFING AND CARE POLICIES

Rate the facility in terms of these criteria.

		Excellent	Good	Fair	Poor	
215.	There are written patient care policies	4	3	2	1	70/9
216.	They include provisions for utilization review	4	3	2	1	71/9
217.	They include provisions for hospital transfers when medically determined	4	3	2	1	72/9
218.	Provision is made to transport residents safely to and from the source of lab and radiology services, if these are provided by an outside organization	4	3	2	1	73/9
219.	Each resident is visited by his/her physician at intervals as required by regulations for licensed level of care	4	3	2	1	74/9
220.	Rehabilitation program includes periodic re-evaluations by the physician of need and potential for rehabilitation services.	4	3	2	1	75/9
221.	Rehabilitation program includes participation by qualified therapist(s) (OTR, PT, etc.) in patient care conferences with physicians and nurses	4	3	2	1	76/9

	Excellent	Good	Fair	Poor	
222. There is a formal agreement with a qualified dentist to handle oral emergencies.	4	3	2	1	77/9
223. The physician and charge nurse together review each resident's medication at the frequency required by facility policy and/or applicable IDPH regulations for level of care.	4	3	2	1	78/9
224. The Director of Nursing screens prospective patients and participates in their placement.	4	3	2	1	79/9
225. An employee of the facility (a medical record librarian, if employed) is assigned the responsibility for assuring that records are maintained, completed, preserved and confidential.	4	3	2	1	80/9
226. This person receives regular consultation from medical record librarian.	4	3	2	1	Repeat col. 1-9 from card 04 10-11/06 13/9
227. Clergymen are permitted reasonable access to patients.	4	3	2	1	14/9
228. In general, personnel are adequate in number and training to meet the total needs of the residents.	4	3	2	1	15/9
229. Sufficient personnel are awake and on duty at all times to meet total needs of residents.	4	3	2	1	16/9
230. The facility has <u>written</u> personnel policies. (SURVEYOR SHOULD ASK TO SEE THEM).	4	3	2	1	17/9
231. It has <u>written</u> job descriptions for all budgeted positions. (AGAIN, ASK TO SEE THEM).	4	3	2	1	18/9

	Excellent	Good	Fair	Poor	
232. No employee is assigned duties other than those directly related to his job.	4	3	2	1	19/9
233. All personnel have training or experience in job assignment.	4	3	2	1	20/9
234. There is a plan of personnel coverage for regular staff when they are absent.	4	3	2	1	21/9
235. There is evidence of a good working relationship with community health and welfare resources.	4	3	2	1	22/9
236. There is evidence that outside agencies and/or volunteers participate in the treatment and/or activity programs.	4	3	2	1	23/9
237. Nursing services are under the full-time direct supervision of a registered professional nurse currently licensed in the state.	4	3	2	1	24/9
238. All licensed practical nurses and nursing aides on duty during the evening or night hours are supervised by a registered professional nurse who is on duty and makes frequent rounds.	4	3	2	1	25/9
239. Nursing personnel are assigned only nursing duties.	4	3	2	1	26/9
240. A written nursing care manual is readily available to all nursing personnel.	4	3	2	1	27/9
241. The nursing care manual is consistent with the practices being carried out in this facility.	4	3	2	1	28/9

STAFF EDUCATION

Rate the facility's education program in terms of these criteria.

		Excellent	Good	Fair	Poor	
	The facility's formal, coordinated inservice program for nursing service includes a planned orientation program provided for new:					
242.	LPNs	4	3	2	1	29/9
243.	Aides and orderlies	4	3	2	1	30/9
244.	Personnel involved in the activities program.	4	3	2	1	31/9
	The inservice program includes on-the-job-training and/or continuing education provided for the:					
245.	Registered professional nurses	4	3	2	1	32/9
246.	LPNs	4	3	2	1	33/9
	In addition to the inservice program for nursing personnel, there are formal, coordinated orientation and/or inservice education programs for					
247.	Dietary personnel	4	3	2	1	34/9
248.	Housekeeping personnel	4	3	2	1	35/9
249.	Laundry personnel	4	3	2	1	36/9
250.	Maintenance personnel	4	3	2	1	37/9
	The inservice program includes participation by					
251.	The medical staff or attending physicians.	4	3	2	1	38/9
252.	The advisory or staff dentist	4	3	2	1	39/9
253.	The consulting or staff dietician	4	3	2	1	40/9
254.	Trained and qualified persons participating in the facility's rehabilitation and activity programs	4	3	2	1	41/9
255.	The occupational therapist	4	3	2	1	42/9

C. GENERAL OBSERVATIONS

Complete this section after the initial tour and review of records and policies. Then return, as necessary, to various parts of the facility to answer any items in the survey you have not yet answered.

PHYSICAL PLANT

256. Number of floors in the building(s) that are used by residents ☐ 43/9

Rate the facility in terms of these criteria.

	Excellent	Good	Fair	Poor	
257. There are written fire, evacuation, and disaster plans.	4	3	2	1	44/9
258. These plans are posted in conspicuous places.	4	3	2	1	45/9
259. In general, furnishings, equipment and supplies are sufficient to meet regulatory standards for level of care.	4	3	2	1	46/9
260. Each living room is provided with adequate quality and number of reading lamps, tables, and chairs, or settees.	4	3	2	1	47/9
261. In general, all furniture and furnishings are adequately maintained in good condition.	4	3	2	1	48/9
262. The facility is maintained free of insects and rodents.	4	3	2	1	49/9
263. Bathtubs, shower stalls, and/or lavatories are not used for laundering, janitorial, or storage purposes.	4	3	2	1	50/9
264. Sanitation of garbage storage areas is satisfactory.	4	3	2	1	51/9

	Excellent	Good	Fair	Poor	
265. Soiled linen and clothing are properly handled.	4	3	2	1	52/9
266. An adequate linen supply is available (in general, 4X the usual census, or 2 on shelf, 1 in use, 1 dirty).	4	3	2	1	53/9
267. Screens are provided for all windows and doors.	4	3	2	1	54/9
268. There are no warped floor tiles, torn carpeting or linoleum, etc. evident that might make walking dangerous.	4	3	2	1	55/9
269. The building in general - both interior and exterior - is maintained in good repair.	4	3	2	1	56/9

270. Variations in odors: Observer should identify and locate each odor as encountered, making a final rating after all observations.
Odors encountered:

a. _____ d. _____

b. _____ e. _____

c. _____ f. _____

Rating:

No noticeable variation in odors 1 57/9

Some variation: two different odors evident in two different areas or an odor in one area and no odor in other areas. . 2

Moderate variation: at least three different odors (one may be a "no odor") are encountered in different rooms or areas. 3

Much variation: more than three odors encountered - many areas seem to have their own distinctive odor (one may be a "no odor".) 4

Patterns of usage: Observer should rank the four areas with regard to amount of usage, assigning a "1" to area of greatest usage, "2" to second most used, etc. to a "4" for area least used.

271. Bedrooms = ☐ 58/9

272. Halls = ☐ 59/9

273. Dayroom = ☐ 60/9

274. Dining area = ☐ 61/9

275. Complexity of building: (rate the entire area in which residents spend time)

62/9

Very complex 1
Would require considerable care, learning, assistance, or directions to find one's way about the building. A slightly impaired elderly person might find it extremely difficult to eventually learn his way about the building. May be very spread out or has several wings; may be unsymmetrical and/or has several unmarked or "unexpected" areas.

Some complexity 2
Building is moderatley large or a bit complex-requiring some assistance, learning, or instruction during the first day or two of residence, but even a slightly impaired resident would learn his way about without too much trouble.

Little complexity 3
Size and complexity poses no problem. Building is small and/or simple, such as a relatively small one or two-story home.

276. General attractiveness of physical plant: including furniture, draperies, carpets, paintings, plants, flowers, color scheme, woodwork, walls, etc. Rating should be based on all aspects of the interior physical plant, but only those areas of the plant that the residents occupy, rather than the reception room or director's office. Do not include psycho-social characteristics in this rating.

63/9

Distinctly unattractive . . . 1
Observer's reaction is strongly negative. Physical plant is distasteful, very unappealing, as perhaps a flophouse or slum dwelling.

Somewhat unattractive 2
Physical plant is unattractive and observer may feel a mild negative reaction. Physical plant may be cold, garish, sterile, "institutional," cheap, or somewhat dirty or run-down.

Neutral 3
Rater may not be impressed by either positive or negative features. Reaction may be, for example, "not bad for an old place." Observer does not find it at all attractive, but doesn't find it unpleasant either.

Attractive 4
Overall effect is fairly positive. May be old, spartan, or somewhat unimaginative, but done in good taste. Seems fairly pleasing or comfortable and may have some attractive features. Adequate, pleasant, but not impressive or particularly noteworthy.

Appealing 5
Overall effect is favorable. Attention may be drawn to some interesting features which may be novel or appealing. May evoke some admiration for whoever "put the place together" or suggests that furnishing or decoration must have been done at some expense.

Highly appealing 6
Environment has personal appeal for the rater. Attractive enough to be desirable for one's own home, or has features that one might wish he had in his own home.

ACTIVITIES

Rate the facility on these criteria.

		Excellent	Good	Fair	Poor	
277.	There is a crafts department or specific physical area for crafts and hobbies, which is actually in use for this purpose.	4	3	2	1	64/9
278.	Any group recreational facilities, such as bowling, shuffleboard, tennis, badminton, billiards tables, pinball machines, etc.	4	3	2	1	65/9
279.	A reading room, or an area set aside for this purpose, or an area which seems to be used primarily for this purpose.	4	3	2	1	66/9
280.	A commissary (or a counter with candy, cigarettes, pencils, stamps, etc.)	4	3	2	1	67/9
281.	Space for private consultation with clergy.	4	3	2	1	68/9

		Excellent	Good	Fair	Poor	
282.	General Rating: Adequate space and equipment are provided for recreation and activities.	4	3	2	1	69/9
283.	Patients are encouraged by staff to participate in activities designed to meet their social needs.	4	3	2	1	70/9
284.	There is a formal, planned activity program with an adequate number of trained and experienced staff involved to meet residents' needs.	4	3	2	1	71/9
285.	The activity program is planned and directed by a trained staff member.	4	3	2	1	72/9
286.	The program includes planned activities available to residents every day.	4	3	2	1	73/9

287. The activity program includes which of the following (check those for which evidence is observed and then count the total number checked):

Recreational activities (examples: games, both quiet and active; parties; outside entertainment; etc.).

Crafts (applicable for both men and women).

Religious activities (examples: Bible study or discussion; Bible quizzes and games; hymn singing; grace at meals; etc.) in addition to routine religious services.

Service activities for community and/or facility (examples: assist with community fund drives; projects for orphanages; care of one's own area in the facility; helping to fold linen; etc.).

Intellectual and educational activities (examples: classes in writing, arithmetic, grooming, and social graces; planned group discussion; quizzes and word games; resident council; newsletter; etc.).

Community activities (examples: residents' participation in community activities such as plays; church events; band concerts; tours; etc.).

Number of types of activities checked ☐ 74/9

Rate the facility on these criteria.

		Excellent	Good	Fair	Poor	
288.	The variety of activities is designed to interest the majority of patients.	4	3	2	1	75/9
289.	Patients are permitted and encouraged to leave the premises to shop, visit, and participate in activities outside the home.	4	3	2	1	76/9
290.	There are formal committees in the home (or a patient council) of which residents are members.	4	3	2	1	77/9
291.	There are clubs or organizations in the home to which residents belong and which have regular meetings or activities.	4	3	2	1	78/9
292.	During the survey there was evidence of substantial patient involvement in diversionary activities.	4	3	2	1	79/9

How many residents did you observe engaging in these joint activities- in groups of two or more?

		Most	Some	Few	None	
293.	Walking together	4	3	2	1	80/9

Repeat col. 1-9 from card 04 10-11/07

294.	Engaged in sustained conversations (20 seconds or longer, more than exchanging greetings)	4	3	2	1	13/9
295.	Arguing with each other	4	3	2	1	14/9
296.	Visiting with outsiders (includes visitors, volunteers, etc.)	4	3	2	1	15/9
297.	Jointly participating in a craft or hobby	4	3	2	1	16/9

	Most	Some	Few	None	
298. Other joint activities (LIST EXAMPLES)	4	3	2	1	17/9

299. General rating of interaction among residents (based on proportions of all residents involved in social interaction during survey):

Very little interaction or contact 1 18/9

More than three-fourths of residents are not interacting - most are seen walking or sitting alone, or in bed. If residents are in multiple-bed rooms, most are not interacting. Lounges, if any, contain only a small proportion of residents in close proximity with other residents.

Some interaction 2

Some area, e.g., lounge or lobby, may contain slight concentrations of residents in close proximity, some other residents may be seen interacting in pairs or small groups, but at least 50% of residents appear to not interact much.

Roughly equal distribution of isolates and groups 3

40-60% of residents appear alone or in company of others but not interacting, while 40-60% of residents are interacting or in close proximity with others.

Much interaction 4

Majority of residents are seen interacting- sitting, standing, or walking in the company of others. Relatively few isolates observed.

How many residents did you observe engaging in these solitary activities - by themselves?

	Most	Some	Few	None	
300. Sewing, knitting, crocheting	4	3	2	1	19/9
301. Writing letters, poetry, etc.	4	3	2	1	20/9
302. Drawing, painting, making posters, etc.	4	3	2	1	21/9
303. Working on any other craft or hobby (not including those in Q. 299-301)	4	3	2	1	22/9
304. Listening to radio or phonograph (do not include watching TV)	4	3	2	1	23/9

	Most	Some	Few	None	
305. Other solitary activities (LIST EXAMPLES)	4	3	2	1	24/9

306. General rating of amount of activity of residents (based on your experience in long-term care facilities)

Low 1 25/9
Few residents seem at all active. Residents seem phlegmatic, inactive; spend most of their time just sitting, lying, or slowly wandering.

Moderate 2
Amount of activity seems about average or low-average for this age group. Only some residents seem moderately busy, but a large proportion are rather inactive.

High average 3
Activity level seems somewhat above average for this age group - somewhat higher than one would usually find in an Old Age Home, but not extreme nor particularly impressive.

Very high 4
Many or most residents seem very busy much of the time. Activity predominates. Observer is impressed with amount of activity - more than one would ordinarily find even in an "active" Old Age Home.

PROGRAM OF CARE

307. Residents reflect attention to their personal care and grooming (rate only those residents moving around in the general living area, e.g., corridors and lounges. Do not rate those residents in sleeping rooms.)

If most residents are reasonably well-groomed but a substantial minority are not, assign the lower of the two ratings.

Residents not well-groomed or clean 1 26/9
Women may wear no make-up and have hair uncared-for or wear inappropriate make-up or make-up is crudely applied. Men may be unshaved and/or uncombed.

Residents neither distinctively clean or dirty 2

Residents are well-groomed, well-washed 3

Make-up is appropriate on women; men are clean-shaven, hair is combed. Residents dressed as if awaiting visitors or about to go outside.

Rate the facility's program of care regarding residents on the following criteria:

	Excellent	Good	Fair	Poor	
308. Residents are free of offensive odors.	4	3	2	1	27/9
309. Residents' hair is clean, neat, well-groomed.	4	3	2	1	28/9
310. Residents show evidence of clean mouths and teeth, including dentures.	4	3	2	1	29/9

---

311. Residents' clothing is clean and appropriate (again, rate only those residents moving around in the general living area).

Moderately or badly soiled . . 1 30/9

Moderately or badly wrinkled, with holes, dirt, spots, stains, threadbare, etc. Disheveled appearance. Minimal attention given to clothing.

Moderately clean and pressed . .2

Such as what might be worn by the average person while lounging in his home or yard.

Clothing is very neat and clean 3

Freshly laundered and pressed. In the condition (but not necessarily the quality) that might be demanded of, e.g., a sales person.

---

312. Personalization of residents' attire: (Observer should ASK how many residents wear clothes provided by institution).

Institutional 1 31/9

Institutional clothing, gown, or uniform is worn by all or most residents.

Most wear used clothing 2
(Non-institutional) provided by the home, or many wear institutional gowns or uniforms. Few wear their "own" clothes (provided by selves or by relatives).

Most wear their own clothes . . 3
But some wear gowns, uniforms or used clothing provided by the institution, including unmarked used clothing.

All residents wear own clothes .4
Provided by themselves or by relatives.

---

313. Did you observe evidence that residents are encouraged by staff to achieve and maintain their optimal level of self care with regard to hygiene and grooming? (Score only if you actually observe residents attending to their own needs in these areas).

Yes, to a great extent 4 32/9

Yes, moderately 3

Yes, minimally 2

Not at all 1

---

314. Did you observe evidence that residents are encouraged through restorative nursing care and rehabilitation programs to achieve and maintain their optimal level of mobility and independence? (Note here the use of foot boards, hand rails, gait belts, and other such equipment).

Yes, to a great extent 4 33/9

Yes, moderatley 3

Yes, minimally 2

Not at all 1

---

315. Did you observe evidence (notices, references made by residents, etc.) that regularly scheduled religious services are held in the facility?

Yes 2 34/9

No 1

Rate the facility on the following criteria:

		Excellent	Good	Fair	Poor	
316.	Nursing service personnel practice restorative care round the clock, seven days a week.	4	3	2	1	35/9
317.	The program for restorative care includes transfer activities.	4	3	2	1	36/9
318.	There is an ongoing program implemented to prevent and treat decubiti.	4	3	2	1	37/9
319.	Nursing personnel are aware of the psycho-social needs of the residents.	4	3	2	1	38/9
320.	Facility presents evidence of using good patient care practices (general rating).	4	3	2	1	39/9

Nursing personnel (RNs, LPNs, aides, orderlies) show evidence in their work of having received special instruction in:

		A Great Deal	Moderately	Minimally	Not At All	
321.	Rehabilitation techniques	4	3	2	1	40/9
322.	Proper body positioning	4	3	2	1	41/9
323.	Encouraging resident activity	4	3	2	1	42/9
324.	Preventive skin care	4	3	2	1	43/9
325.	Bowel and bladder training	4	3	2	1	44/9
326.	Assisting in the techniques of patient ambulation	4	3	2	1	45/9
327.	Proper transfer techniques	4	3	2	1	46/9
328.	Encouraging residents' education in activites of daily living	4	3	2	1	47/9

329. Extent of staff's general involvement with residents:

48/9

Hostility 1
Hostility seems to exist toward residents at some level. Contact is highly formal, curt, or abrupt. Some staff appear to feel that residents are a nuisance or are "in the way."

Staff concerned with "own work" 2
Most staff are primarily concerned with "their own work". Residents are left alone and/or ignored during most of observation period. Contact, when it occurs, is rather formal - little personal involvement evident.

Some involvement apparent . . . 3
But mostly through staff's duties with residents. I.e., most of staff's contact with residents occurs as a part of staff's duties (e.g., giving out medicine), but this contact may be highly personalized, and some efforts may be made toward additional, "non-formal" contact.

Much personal involvement . . . 4
Most staff members seem personally involved with residents. Members go out of their way to interact with residents or their manner suggests a sincere concern for residents. Much attention paid to activities, whims, and welfare of residents.

---

330. Physical contact between staff and residents:

49/9

Little or no physical contact . 1
Little or no evidence of contact, except accidentally. Staff may seem to avoid physical contact.

Some physical contact 2
E.g., resident may take a staff person's arm when climbing stairs or walking and/or staff and resident may briefly shake hands when meeting, but little else. Little physical contact evident, but no apparent avoidance of contact.

Much physical contact 3
Some staff seen putting hands or arms on resident's shoulder; staff hold resident's hand or arm during conversation; staff teaches resident or helps him by holding or guiding hands, arms, or legs.

Close physical contact 4
Close contact observed, including hugging, embracing; contact between trunks of bodies or extended intimate contact, such as prolonged resting of arm on shoulder, etc.

331. After considerable observation, what would you judge to be the staff's apparent role vis a vis the residents?

Landlord 1 50/9
No duties re maintenance, e.g., feeding, giving medicine, etc. nor does there appear to be any assumption of a therapeutic role.

Watchdog or guard 2
To ensure that no one does anything wrong, hurts himself or someone else, or runs away.

Caretaker 3
To provide for basic maintenance needs of the individual - to keep him alive and reasonably well.

Caretaker Plus 4
As above, but in addition, tries to befriend individual, keep him happy or make him somewhat happier or better adjusted. At least, tries to deal with resident on somewhat more personal or "therapeutic" level than a mere caretaker.

Therapeutic 5
Sees role primarily as trying to improve the resident, his adjustment, or his circumstances.

---

332. Overall rating of "pleasantness": observer should include in his judgement all characteristics of the environment - psycho-social as well as physical characteristics.

Distinctly unpleasant 1 51/9
I find it difficult to understand how anyone could stand to live here and would not take the responsibility for placing someone here myself. I'd feel that such a placement would be quite unjust.

Somewhat unpleasant 2
I'd feel somewhat guilty placing a person here and might use it as a last resort. An older person might well find it somewhat unpleasant or ungratifying and would be satisfied with it only with some effort.

Adequate 3
If financial resources or alternatives were limited, I'd feel that this would be an entirely reasonable place to live. It would not be at all unjust to place a person here if resources or alternatives were limited.

Quite pleasant 4
E.g., if I were responsible for finding a home for an older person, I'd feel quite comfortable placing him here. I would expect that the person would find this to be a pleasant, gratifying, and reasonably enriching environment.

COMMENTS

(Include your estimate of total time required to complete this section.)

333. Interviewer ID ☐ 52/9

Signature _____

OMB NO. 68-S72092

APPROVAL EXPIRES 11-31-73

Rush-Presbyterian-St. Luke's Medical Center

FACILITY SURVEY

SECTION III: STAFF INTERVIEW

Facility _____ [ ][ ] Col. 1-2

Date [ ][ ] [ ][ ] 5-8
month day

Surveyor _____ [ ] [0][8] 9-11
ID card

TIME INTERVIEW BEGAN _____ AM PM

INTRODUCTION

Hello, my name is (YOUR NAME). I am part of a group at Presbyterian-St. Luke's Hospital in Chicago looking at nursing homes and their residents. We are trying to find out what nursing homes are like and how people in them are getting along. (ADMINISTRATOR'S NAME) has asked me to talk to you for about half an hour. No one else here will be told any of the answers you give to the questions I ask. All our information is confidential.

334. First, how long have you worked here?

Less than one month 1 13/9

One month--less than 3 mos. . . 2

3 months--less than 6 mos. . . 3

6 months--less than 1 year . . .4

1 year--less than 3 yrs 5

3 years or more 6

---

335. Do you usually work the day shift, afternoon shift, or night shift?

Days 1 14/9

Afternoons 2

Nights 3

---

336. And what is your exact job title?

_____ ☐☐ 15-16/99

---

337. Do any of the residents here belong to any clubs or organizations outside the home--that is where they leave here to go to meetings?

Yes . . . . . ASK A&B 17/9

No. 1

A) Can you give me some examples of the things they belong to?

B) Are these activities mostly things the residents get involved on their own, are they mostly things organized by the staff here, or are they both?

Mostly on their own 4

Both 3

Mostly by staff 2

338. Do any of the residents have paying jobs outside the home?

Yes 2 18/9

No 1

339. Are any of them paid for any work they do here in the home?

Yes 2 19/9

No 1

340. How many of the patients here have some specific chores they always do--would you say more than half of them, less than half of them or almost none of them?

More than half 3 20/9

Less than half 2

Almost none 1

341. Does the staff try to have every resident who is able to, do some chores, or not?

Yes 3 21/9

Some who are able 2

No 1

342. Can you think of a time when a newer resident asked the staff if he could do some of the work or help with the chores? (IF YES: Did the person get assigned a specific chore to do every day, or not?)

Yes, got chore 3 22/9

Yes, didn't get chore 2

No 1

343. I want you to imagine this situation: Out of the corner of your eye you notice a resident going out the front door and you can't tell who it is. What's the first thing that you would do? (RECORD VERBATIM AND CODE INTO ONE OF THESE CATEGORIES)

"I wouldn't pay any attention - that's their business.". .5 23/9

"I'd notice who it was and where he was going." (Out of

curiosity - no action would be taken either way.) 4

"I'd notice who it was and where he was going, then decide whether or not to let him go." 3

"I'd run out and find out who it was and where he was going, and then decide whether or not he could go." (Or find out if he had permission to go.) 2

"I'd run after him and bring him back." 1

Now I would like to ask about mealtimes. Is there a specific time scheduled for (breakfast) every day for all residents, for some of them, or is there no scheduled time for (breakfast)? (REPEAT FOR 345, 346)

		Scheduled for all	Scheduled for some	Not Scheduled	
344.	Breakfast	1	2	3	24/9
345.	Lunch	1	2	3	25/9
346.	Dinner	1	2	3	26/9

347. Are the residents ever allowed to use the facility's kitchen to do their own cooking or baking?

Yes 2 27/9

No 1

Now I would like to find out about people from outside who come here to entertain the residents, work with them, or just keep them company. First, how often do (paid performers come to entertain) the residents - would you say never, less than once a month, or more than once a month? (REPEAT for Q. 349-350: And how often do ....)

		Never	Less than once/month	More than Once/month	
348.	Paid performers come to entertain	1	2	3	28/9
349.	Amateurs who are not paid come to entertain	1	2	3	29/9
350.	Volunteers or volunteer groups come to work with	1	2	3	30/9

351. How many visitors - people coming to see a specific patient - are there here on an average weekday? (Just your best guess)

31-33/999

352. And how many visitors on an average Sunday? (Just your best guess).

34/361/999

353. During a typical summer day, how many of the residents go outside of the building--for example, go outside to go shopping, to visit someone, go for a walk, or just sit on a bench? Would you say more than half, about half, less than half, or almost none go outside.

More than half 4	37/9
About half 3	
Less than half 2	
Almost none 1	

354. Does the staff try to get people to go outside the building, or do you leave that up to the residents themselves?

Staff tries (ASK A). 2	38/9
Up to residents (ASK B). 1	

355. (A) Do you try to get (most of) the patients to go outside, or just some of them?

All 5	
Some. 4	

(B) Is that mostly because they aren't able to get outside, mostly because you don't have time to watch them, or mostly because they don't want to?

Aren't able. 1	
Don't have time 2	
Don't force them 3	

356. How far is it to the nearest shopping center or business area with a number of different stores?

Less than 2 blocks (1/4 mile). .1 40/9

2 - 4 blocks (1/4 - 1/2 mile). .2

4 - 6 blocks (1/2 - 3/4 mile). .3

6 - 8 blocks (3/4 - 1 mile) . . 4

More than 8 blocks (1 mile). . .5

---

357. How many of the residents who are up and about today are wearing their own personal clothing rather than clothing provided by the facility -- would you say almost all of them, some of them, or only a few of them are wearing their own clothing?

Almost all 3 41/9

Some 2

Only a few 1

---

358. Suppose a resident wanted to be completely alone during part of the day. Would he or she be able to go to his own room, or not?

Yes (ASK A). 2 42/9

No (ASK B) 1

359. A) If he went to his room, could he be left entirely by himself if that's what he wanted, or would he be interrupted sometimes by meal calls, or someone coming to clean, or give medications, or something like that?

Left entirely alone. 4 43/9

Sometimes interrupted. 3

B) Would he or she usually be able to find some other place to be alone, or not?

Yes 2

No 1

360. When a resident is in his room, does a staff member always knock before going in, does he sometimes knock depending on the resident, or does he rarely knock before going in?

Always 3 44/9

Sometimes 2

Not Usually 1

361. Now think back to when the bedrooms or sleeping areas were painted last. Did most of the residents have any say in what color their rooms were painted, did some of them have some say, or did none of them have any say? (IF "NEVER BEEN REPAINTED," CODE "2")

Most 3 45/9

Some 2

None 1

362. Do the residents ever try to make changes in the home--for example, changes in the rules, or the way things are arranged--or do they not try to change anything? (IF YES: Are their ideas about changing the home often practical, sometimes practical, or rarely practical?)

Yes, often 4 46/9

Yes, sometimes 3

Yes, rarely 2

No 1

363. Can you think of an example of something a resident here did that made you feel proud of him or her, or can't you think of an example of this?

Yes . . . . . (ASK A-C) 47/9

No 1

(A) Please tell what that was (RECORD VERBATIM AND CODE AS BELOW).

Incident involves withdrawal, quiescence; or compliance with institutional rules 2

Incident reflects initiative or some "therapeutic" effort on the part of the resident 3

364. (B) When this happened, did you do something to let the resident know you were proud of him, or not?

Yes 3 48/9

No 2

No incident 1

365. (C) Do you think the resident knew that you felt proud of (him/her), or not?

Yes 3 49/9

No 2

No incident 1

Some people say that in places like this certain residents come to have more status than others - for example, they get their choice of rooms or furniture, or they get extra privileges. I'm not saying I think there's anything wrong with this. Do some residents here get (better rooms) after they have been here a while, or not? (REPEAT FOR Q.367-368: Do some residents . . . .)
(IF YES: Does this happen often or only once in a while?)

	No	Yes, once in a while	Yes, Often	
366. Better rooms	1	2	3	50/9
367. Special privileges	1	2	3	51/9
368. Some authority over other residents	1	2	3	52/9

369. Now can you think of any other kind of status or other extra things that some residents get here, or can't you think of any? (IF YES: Does this happen often or only once in a while?)

Yes, often 1 53/9

Yes, once in a while 2

No 3

---

370. Some people say that older people often want to do things for themselves, but when they try they just make a mess of them. Do you think it's true that older people want to do things for themselves, or not?

Yes 2 54/9

No 1

371. And do you think that when older people try to do things for themselves, they usually make a mess of them, or do you not think that? (IF YES: Do you think they should try to do things for themselves anyway, or not?)

Yes, try anyway 2 55/9

Yes, should not try 1

No 3

---

372. Some people working in places like this think that older people are pretty fragile, and that they shouldn't be allowed to be too active or they might hurt themselves. Others think that older people should keep active and do just about everything for themselves. What do you think--that they shouldn't be allowed to be too active, or that they should keep active and do as much as they can?

Shouldn't be too active 1 56/9

Should keep active 2

---

373. Now think about times when the staff has a problem with a specific resident and someone has to decide what to do about it. In this place, who usually decides what to do--does someone in charge decide, is it left up to the individual staff member involved, or does the staff decide as a group in a staff meeting?

Someone in charge 1 57/9

Left up to individual 2

Decide as a group 3

---

374. On an ordinary, day-to-day basis, are personal conflicts among residents usually worked out by the residents themselves, or do members of the staff usually have to deal with these problems?

By residents themselves 3 58/9

Sometimes residents, sometimes staff . . 2

Staff 1

Now I will ask in general terms about the staff's job here in relation to the residents. Do you think it is the staff's job to (provide housing or be a landlord) or not? (REPEAT FOR Q.376-379).

	Yes	No	
375. Provide housing or be a landlord?	2	1	59/9

		Yes	No	
376.	Watch the residents and take care of them in their declining years?	2	1	60/9
377.	Work with the residents to help them become more independent?	2	1	61/9
378.	Keep the residents from hurting themselves?	2	1	62/9
379.	Keep the residents from getting into trouble?	2	1	63/9

I would like you to tell me how some different kinds of behavior are viewed by the staff in this home. As I describe each behavior, please tell me which of the groups on this card - "1", "2" or "3" (HAND CARD H) the behavior falls into. First what about . . . (Then what about . . .)

CARD H

1. INTOLERABLE: RESIDENT WOULD HAVE TO MOVE OUT IF HE DISPLAYED THIS BEHAVIOR.

2. UNDESIRABLE: RESIDENT COULD STAY IF HE DISPLAYED THE BEHAVIOR BUT THE STAFF WOULD TRY TO PUT A STOP TO IT.

3. TOLERABLE: IT'S WHAT IS TO BE EXPECTED AND WE WOULD PUT UP WITH IT.

		Intolerable	Undesirable	Tolerable	
380.	Damaging or destroying property such as chairs, tables, lamps, magazines, windows, and so on	1	2	3	64/9
381.	Threatening other people	1	2	3	65/9
382.	Smoking in bed	1	2	3	66/9
383.	Taking too much of a drug or medication--whether it is on purpose or not	1	2	3	67/9
384.	Wandering	1	2	3	68/9
385.	Confusion and disorientation	1	2	3	69/9
386.	Not being able to feed oneself	1	2	3	70/9
387.	Being unable to sleep at night or sleeping at the wrong times	1	2	3	71/9

		Intolerable	Undesirable	Tolerable	
388.	Complaining too much about physical problems	1	2	3	72/9
389.	Being depressed, crying, or often being sad or "blue"	1	2	3	73/9
390.	Withdrawing from contact with other persons or activities	1	2	3	74/9
391.	Incontinence	1	2	3	75/9
392.	Not being able to dress oneself	1	2	3	76/9

393. In the last three months, have you had any training related to your job - this includes classes, inservice programs, conferences, workshops, or something like that?

Yes 2 77/9

No 1

394. Many people were not able to get all the education they would have liked. Did you get as much education as you wanted, or not?

Yes 1 78/9

No 2

395. What is the highest grade or class you finished in school?

0-4 grades 1 79/9

5-7 grades 2

8 grades 3

9-11 grades (some high school) 4

high school graduate 5

technical, trade, business or nursing school 6

some college, but not a graduate 7

college graduate 8

That's all the questions. Thank you for your help.

INTERVIEWER: COMPLETE THE FOLLOWING AFTER LEAVING THE INFORMANT.

Repeat col. 1-9 from card 08
10-11/09

396. Informant's Sex

Male 1 13/9

Female 2

---

397. Race

White 1 14/9

Black 2

Latin American 3

Other (SPECIFY) 4

---

398. In general did he/she appear to understand the questions, or not?

Yes 1 15/9

No 2

---

399. In general did he/she appear interested in the interview, or not?

Yes 1 16/9

No 2

COMMENTS

TIME INTERVIEW ENDED	_____ AM PM

Signature _____

OMB NO. 68-S72092

APPROVAL EXPIRES 11-31-73

STAFF SURVEY

On this form are some statements about places, like nursing homes, where people stay who need some help getting along. Please look at each one and decide whether or not it is true of this place. If you agree with the statement, circle the "1" next to it. If you disagree, circle the "2" opposite the statement.

Please answer all the statements. Do not worry about whether you have the "right" answer - just say what you think. The form should take about 10 minutes. The surveyor will be glad to answer any questions you have about it.

Thank you for your help.

DO NOT WRITE IN THIS BOX

Name of Facility _____			Col. 1-2
Date _____	month	day	5-8
FACILITY SURVEY: SECTION IV	I.D.	1 0 card	9-11

Do you think that:	Yes	No	Do not write in this colum
400. It's hard to get a group together for card games or other activities.	1	2	13/9
401. Your residents are strongly encouraged to express themselves freely here.	1	2	14/9
402. Your residents put a lot of energy into what they do around here.	1	2	15/9
403. Your residents sometimes play practical jokes on each other.	1	2	16/9
404. This is a lively place.	1	2	17/9
405. The residents tend to hide their feelings from one another.	1	2	18/9

GO TO NEXT PAGE

Do you think that:	Yes	No	Do not write in this column
406. Your residents always know when the staff will be around.	1	2	19/9
407. The staff encourages the residents to express their anger openly here.	1	2	20/9
408. The staff have little time to encourage the residents.	1	2	21/9
409. Your residents' activities are carefully planned.	1	2	22/9
410. A lot of residents just seem to be passing time here.	1	2	23/9
411. It's hard to get people to argue around here.	1	2	24/9
412. Your residents hardly ever discuss their sexual lives.	1	2	25/9
413. Things are sometimes very disorganized around here.	1	2	26/9
414. Your residents spontaneously set up their own activities here.	1	2	27/9
415. The staff almost always does something about the residents' suggestions.	1	2	28/9
416. The staff knows what the residents want.	1	2	29/9
417. Everyone knows who is in charge here.	1	2	30/9
418. The residents are proud of this home.	1	2	31/9
419. Very few residents have any responsibility for the home.	1	2	32/9
420. Very few things ever get people excited around here.	1	2	33/9
421. Your residents seldom help each other.	1	2	34/9
422. The staff here never start arguments.	1	2	35/9
423. This is a very well organized home.	1	2	36/9
424. Your residents say anything they want to the staff.	1	2	37/9

GO TO NEXT PAGE

Do you think that:	Yes	No	Do not write in this column
425. Your residents are rarely asked personal questions by the staff.	1	2	38/9
426. Discussions are very interesting here.	1	2	39/9
427. The staff rarely gives in to pressure from residents.	1	2	40/9
428. Your residents often criticize or joke about the staff.	1	2	41/9
429. Staff members sometimes do not show up for appointments with residents.	1	2	42/9
430. There is relatively little sharing among the residents.	1	2	43/9
431. Your residents often do things together on the weekends.	1	2	44/9
432. Very few residents ever volunteer around here.	1	2	45/9
433. Residents here rarely argue.	1	2	46/9
434. The staff goes out of its way to help new residents get acquainted here.	1	2	47/9
435. Your residents are pretty busy all of the time.	1	2	48/9
436. Residents are expected to share their personal problems.	1	2	49/9
437. The staff here thinks it is a healthy thing to argue.	1	2	50/9
438. Residents tend to hide their feelings from the staff.	1	2	51/9
439. Your residents are rarely kept waiting when they have appointments with the staff.	1	2	52/9
440. Your residents will be transferred or discharged from this home if they don't obey the rules.	1	2	53/9
441. Your residents are rarely encouraged to discuss their personal problems here.	1	2	54/9

GO TO NEXT PAGE

Do you think that:	Yes	No	Do not write in this column
442. Residents here rarely become angry.	1	2	55/9
443. Your residents are strongly encouraged to express their feelings.	1	2	56/9
444. Residents here are very strongly encouraged to be independent.	1	2	57/9
445. This place usually looks a little messy.	1	2	58/9
446. The staff cares more about how residents feel than about their practical problems.	1	2	59/9
447. The staff strongly encourages residents to talk about their past.	1	2	60/9
448. The staff sometimes argues openly with each other.	1	2	61/9
449. The home's rules are clearly understood by the residents.	1	2	62/9
450. Your residents are careful about what they say when the staff is around.	1	2	63/9
451. There is very little group spirit in this home.	1	2	64/9

Now we would like to know these things about you.

452. How long have you worked here?

		Do not write in this column
Less than one month	1	65/9
One month--less than 3 mos.	2	
3 months--less than 6 mos.	3	
6 months--less than 1 year	4	
1 year--less than 3 yrs.	5	
3 years or more	6	

GO TO NEXT PAGE

Do not write in this column

453. Do you usually work the day shift, afternoon shift, or night shift?

Days ---------- 1 | 66/9

Afternoons ---------- 2

Nights ---------- 3

454. What is your job title?

_____ | | | 67-68/99

455. What is your sex?

Male ---------- 1 | 69/9

Female ---------- 2

Thank you very much for your help.

FACILITY ITEM SPECIFICATIONS

This section indicates the specific behaviors and items of information upon which the surveyor should base his/her answers. It also offers suggestions for procedures and surveyor behaviors that have been found to facilitiate the data collection.

SECTION I FACILITY SURVEY

ADMINISTRATORS REPORT

General Directions (Items 1-89)

(1) Form should be mailed with an explanatory letter to the participating facility two weeks before the survey date.

(2) All questions should be answered in terms of the date for which the survey is scheduled.

(3) Questions 27-42 must be answered on the day of the scheduled survey.

(4) Questions other than 27-42 may be completed ahead of time.

(5) Questions 43 and 44 refer to three calendar months preceeding the data of the survey.

> If the survey date is June 22, the questions are to be answered in terms of March 1 to May 31.

(6) The completed form is returned to the surveyors at the end of the survey day. The surveyors are to ask the liaison person for the completed report.

SECTION II FACILITY SURVEY

SURVEYORS OBSERVATIONS

General Directions (Items 90-399)

(1) Fill this out towards the end of the day.

(2) Fill this out alone after your tour with the liaison person and away from your survey partner.

(3) You must not discuss your answers with your partner.

(4) Attempt to synthesize all that you have observed over the day. Please include what odors you identified as you first entered the building.

(5) Feel free to return to an area, if you are not sure about what you observed.

(6) Feel free to find a seat in a central location for a few minutes and "soak up" what is happening or not happening around you.

(7) Do knock on closed doors and enter rooms.

(8) Find the housekeeping closet and check out mops, supplies, etc.

(9) While in the kitchen look for posted menus, look for hand washing facilities, guidelines for therapeutic menus and/or listing of residents on special diets.

(10) Be aware of your nose, as well as your eyes. Touch a table top, or a bedside stand and see if it feels clean or dirty. Dirty table tops are dusty, or may have a sticky and/or slimy surface.

(11) While on tour initiate a conversation that elicits the following information:

A. Pharmacy/no pharmacy in the building.

B. How medication are obtained. Do they use unit dose?

C. Inservice programs, who teaches, who goes, the frequency.

D. What is done when a resident must go to a hospital?

E. If certified for rehabilitation/social rehabilitation.

F. The consultants available to the staff.

G. Who on site is responsible for the medical records.

H. Is there a place where the resident can meet with his clergyman privately?

I. What are the visiting hours or are there none?

J. Do they have any problems getting the doctors to come see the residents?

K. Ask for:

1. Policy Manuals
   a) nursing
   b) administration
   c) personnel
   d) any others that are available

2. Standing Orders

3. Inservice Records
   a) topics
   b) attendance records

4. Nursing Procedure Manual

5. The Dietary Personnel File

6. The Disaster Plan

7. Agreements with the Dentist, Podiatrist, Doctor, Occupational Therapist, Physical Therapist, Social Worker, Clergy, Etc.

8. Resident Committee Meeting Minutes

9. Job Descriptions

10. Utilization Review Committee Minutes

L. Ask the length of the menu cycle, and to see the menu file.

M. Project the attitude of interest and concern about the facilitie's problems. Several carefully timed, "...hmm...yes, well... anything else?" can go a long way towards eliciting necessary information.

N. Listen for what <u>is</u> said and what <u>is not</u> said!

A. Initial Tour

(1) Questions 90-91. Surveyor to observe and note upon entering the facility.

(2) Question 92. Allow for condition of yard and garden in the fall, winter, and early spring. But evidence of flower beds and attempts at decorative planting can be observed at any season.

(3) Questions 93-96.

- marble and/or terrazzo floors are rated as "2's"
- when the lounge/day room and dining rooms are all one multi-purpose room rate as separate areas.

(4) Questions 97-100. When the lounge/day room and dining room are all one multi-purpose room rate as separate areas. On occassion it will be evident that carpeting has been used to help code areas, again rate as separate areas.

(5) Questions 101-104. Observe along base boards and in corners of patient rooms as tour progresses, look in the staff bath room. Look at the floors in the storage areas.

(6) Questions 109-112. Look carefully at areas around light switches and where the medications are prepared.

(7) Questions 113-144. Use definitions found in data collection schedules. Look carefully in the kitchen around the sink and stove areas and in garbage disposal area Use your nose! Sharp shadows imply high illumination with glare.

(8) Questions 145-146. Find a resident bathroom not in use and look.

(9) Questions 147. You may have to ask permission of one of the residents. To check this open a bedside stand. While looking at equipment storage note condition of inside of cabinet and see if the drawer has been washed/cleaned on the inside.

(10) Question 148. When possible ask a resident to point out which drawer, closet, chairs, etc. are for his use. Turn on the light to see if it works.

(11) Question 149. The implication here is, does the room have a distinct variation easily observed by a sensory-perceptually impaired aged person, or does it look like any of 5,000 rooms built, furnished, decorated by a large motel chain?

(12) Question 150. This requires the surveyor to evaluate his own feelings about the level of personalization of the rooms/residents living space.

(13) Question 151. Evaluate on the basis of what you observed on either your initial visits or your return visit to the kitchen. Find out the length of the menu cycle, be sure to note if the four basic foods are being served.

(14) Question 152. Daily basic menus should include: milk, 2 or more cups, cheese, ice cream, cottage cheese can count too. Meat: 2 or more servings (total 5-6 oz. a day) this group includes eggs, fish, dried peas, beans, all meats, and poultry. Cheese is also protein and look carefully to see how it is being used. Is it being used as a dairy food or as a protein food? Cereal: four or more servings of wheat grain or enriched bread or cereal. Vegetable and Fruit: four or more servings. Orange juice or equivalent, tomato juice at least 3 or 4 times a week.

(15) Question 153. The utensils that are hung up should look clean and ready for use. The dishes, after they come from the dish washer should look clean and there should not be any food particles clinging to the surfaces.* Does the cook taste and stir the soup with the same spoon? If so, score low.

* Is there lipstick on the edges of freshly washed cups and glasses? There should be a liner in the garbage can and a lid. Would you eat in this dining room? If your answer is "no" score low.

(16) Question 154. Are all the lunch salads and milk products and deserts ready and put on the tables in the dining room and/or on the bedside trays when you are in the kitchen at mid-morning? What is the appearance of the food? Is the jello melted, the lettuce wilted and the sliced apples yellow? If yes score low. Is there some mechanism for keeping warm foods warm and cold foods cold during service and delivery? Does that device appear to be clean? If the answer is "no" score low.

(17) Question 156. Look for a food Osterizer/blender and/or for jars of baby food and/or jr. foods, a food grinder, and/or some area where chopped foods can be prepared. Do you see some attempt to individualize the food service? Perhaps a conversation about residents food preferences. Look for a listing of food preferences and for a list of substitute foods. If not apparent, score low.

(18) Question 157. Look, listen, taste, if possible, walk around the kitchen and dining rooms and smell! If the rest of the dietary and food service items are acceptable this one will be acceptable.

(19) Question 158. Look for individual towels, soap dispenser or bars and hot and cold water. If not there, or obviously never used, score low.

(20) Question 159. For an average 100 + beds there should be somewhat more than 12 F.T.E. employees. For a mid-day meal there should be at least 3 to 4 people in the kitchen. Keep in mind that in some facilities nursing serves and in others the dietary department serves.

(21) Question 160. The kitchen staff and other dietary staff should have clean hands and nails, clean hair and beards that are neat and trimmed or netted. the men should be wearing caps and the women nets over their hair, and uniforms and aprons should be reasonably neat and clean. If not score low.

(22) Question 161. Watch the kitchen personnel, do they use the same cloth to wipe a dish as they do to wipe a spill on the floor? Do they use their hands to serve most of the foods rather than using appropriate forks, spoons, ladles, etc.? If a portion of food drops to the floor, do they discard it or do they serve it. If these things are true score low.

(23) Question 162-163. Answer on the basis of the dietary personnel record that you requested. The health examination should be recorded in the personnel folder. Ask to see one of the dietary staffs food handlers card.

(24) Questions 164-165. Answer on the basis of your intitial tour and interviews with staff.

(25) Question 166. Look in the medication preparation rooms/areas for individualized boxes, containers, drawers. The cupboard containing the boxes, etc. should be locked when not in use. Unit dose implies this type of individualization.

(26) Question 167. Answer on the basis of your observations and staff interviews.

(27) Question 168. The door to the medication room/area should have a lock and the area should be locked when not in use.

(28) Question 169. Stand and listen for a few minutes near the medication area and/or the nurses station. You will soon find out if the keys are kept in the charge nurse's packet or in a nearby drawer.

(29) Question 170-172. Look closely at the medication room/area. Ask where various items are stored.

(30) Question 173-175. Look at the narcotic records. Ask to see where the narcotic's are kept. This area should be under a double lock.

(31) Question 176. If possible observe while a nurse is pouring medications. See if the principles of good medication technique are carried out.

(32) Question 177. Note this while you are checking residents charts for the Patient Review Component of the survey.

(33) Question 178. The same instructions as question 176.

B. Records and Policies

(34) Questions 179-214. Ask to see the resident care plans and the charts. If the charge nurse has to hunt in the files or on the book shelves etc. for

the kardex you will know that it is not easily accessible to all nursing service personnel. Answer these questions based on your chart and kardex review of the four randomly selected residents that you interviewed in the morning.

It is easier to turn to this section while you are doing the medical records review and note the items as you review the chart and cardex. Put a paper clip on page 13-14 so that you can turn to it quickly while you are working with the four charts and cardex cards.

(35) Question 215-241. Answer these questions based on your observations over the day, the initial tour, your interviews, and your informal questions. Be sure to look as thoroughly as time will allow at the materials you requested earlier in the day. You do not need to read every written word, but scan and spot check the books, papers, files, and manuals.

(36) Question 242-255. Answer this section based on your observations, interviews, and records of inservice attendance and programs. Often times there will be posters announcing the current inservice topic. Sometimes the facility will show you with great pride their inservice classroom. Does the area show any evidence of use for that purpose or has it become the current extra store room?

A lack of records, adequate space and equipment, and personnel to coordinate the inservice programs (this depends on the size of the facility) and an unused room would indicate a low score.

C. General Observations

(37) Question 256. Ask the liaison person if this is not clearly indicated.

(38) Questions 257-269. Base your answers on your interviews, observations and the written materials and records presented by the facility.

For question 265 note if linen is bagged or just thrown on the floor. To answer question 266 look in the linen room and on the linen carts and see what is available for use.

(39) Question 270. Some distinguishable odors that you might encounter are:

- the amonia smell of urine
- feces
- sour rag from linen and/or cleaning mop improperly maintained.
- garbage, putrified food, sour milk, rotting meat from improper garbage disposal and/or bussing of trays and dishes.
- stale smoke from cigarettes, cigars, pipes, old ashes.
- rancid oil from an improperly cared for grill and/or cooking range.
- foul smelling toilet and/or bathroom tub room due to inadequate cleaning.

(40) Questions 271-274. Base your answers to these questions on your best judgement after observing the residents for the day.

(41) Questions 275-274. Follow the definition in the data collection schedule and answer accordingly.

Activities

(42) Questions 277-286. Bsse your answers to these questions on your observations over the day.

(43) Question 287. Look for the activity bulletin board and see what is scheduled for the week and/or month. If there is some activity on the day of the survey make a point of stopping in for a brief observation.

Check off the activities which are listed in the data schedule and put the total numbers in the box.

(44) Questions 288-292. Base your answers on your observations and interviews. Feel free to ask occasional questions of staff and residents.

(45) Questions 293-298. Most means more than half, some means less than half, few means two to four residents.

Remember a verbal argument among residents in a long-term care setting has a positive social value.

(46) Question 299. Use the definitions given in the data collection schedule.

(47) Questions 300-306. Follow the guidelines for questions 293 thru 298.

Remember being engaged in a solitary activity is not wrong. It may well be that the particular ethnic and/or social group in the facility being surveyed needs this sort of activity program rather than intense group interaction.

A perfect activity program in a long-term care facility would offer a wide variety of alternatives, and would tailor each resident's activity program to his established life style. This might be noted on the Kardex care plans.

Program of Care

(48) Question 307. Base the answer on the guidelines stated in the data schedule.

(49) Questions 308-311. Base the answer on the four residents your interviewed and on your observations over the day.

(50) Question 312. Ask the question of a staff person as indicated in the data collection tool.

(51) Questions 313-315. To answer question 314 score high if you saw rehabilitation equipment in use.

(52) Questions 316-320. The answers to these questions should be based on the review of the Kardex, and charts as well as on the surveyors own observations over the day.

(53) Questions 321-328. Score high if you saw such techniques being performed, taught, and/or carried out.

(54) Questions 329-332. Follow the definitions in the data schedules and score accordingly.

SECTION III FACILITY SURVEY

STAFF INTERVIEW

General Directions (Items 334-399)

(1) Make the respondent feel as comfortable as possible.

(2) Be sure you have ard H available.

(3) Try to arrange the interview setting so that you are on one side of a table and the respondent is on the other. Try to sit facing one another not side by side.

(4) Be alert to the skip pattern of some of the questions. Code (9) for the questions not used.

(5) Make written notes if you feel it necessary to facilitate editing at the end of the day.

(6) Recite the introduction as indicated on the beginning page.

Item-By-Item Directions

(6) Questions 334-336. Use these questions and the instruction to give the respondent a feeling that you are very interested in him/her and in his/her answers.

(7) Question 337. Note the skip pattern and follow as indicated.

(8) Questions 338-342. Remember to state the question exactly as it is written. Do not change the words or the order in which they are said.

(9) Question 343. Take verbatim notes and code into categories when editing.

(10) Questions 344-350. Repeat the introduction in the data schedule for each of the meal times as indicated in questions 344, 345, and 346.

(11) Questions 351-352. Suggest to the respondent that he/she think of each specific resident and how many visitors each individual one has on an average week day and an average Sunday. The numbers you want is the aggregate of each of the individual totals.

(12) Questions 353-356. Follow the skip direction for 354.

(13) Questions 358-359. Note the skip pattern.

(14) Questions 363-365. If the answer is (1) go to 366. If the answer is "yes" ask and record reaction and code into categories later in the day. Follow question 363 as with questions 364 and 365.

(15) Questions 366-367-368. Note the repitition of "Do some residents ... for questions 367 and 368.

(16) Question 369. Note the script for a "yes" answer. When possible record verbatim the answer to the other kind of status question.

(17) Question 371. Note the follow-up for a "yes" answer.

(18) Questions 375-379. Write the introduction, sentence on the top of page 42 and repeat as indicated.

(19) Questions 380-392. Follow the instructions in the data collection schedule. Try to get the respondent to answer in terms of 1, 2, or 3.

(20) Questions 393-395. Use these items to terminate the interview and refocus the respondent on how interested you are in him/her as a person.

SECTION IV FACILITY SURVEY:

STAFF SURVEY

General Directions (Items 400-455)

(1) Each surveyor is responsible for 2 staff surveys.

(2) Hand them out and go over the explanation with four of the randomly selected staff members during the tour. Be sure that the people interviewed for Section III of the facility survey are not the individuals who fill out this questionnarie.

(3) When you return later in the day to collect this form, be sure that all the items are filled in, if they are not, return it to the staff person and ask him/her to complete the form. If he/she say that he/she "doesn't know" and/or that an answer is "not yes/no" but "sometimes" ask him/her to answer in terms of what he/she thinks is true most of the time.

(4) Be sure the staff person understands that the answers are confidential. Point out that we do not want them to sign this form.

(5) If the staff member does not understand and/or read English, but can answer in another language, you may use an interpreter, your own language skills, gestures, phonetic symbolism, or any other device to get answers.

The procedures and specifications outlined above for the facility items were the ones developed during the surveyor training and pilot test phase of the project.

OMB NO. 68-S72092

APPROVAL EXPIRES 11-31-73

Rush-Presbyterian-St. Luke's Medical Center

PATIENT REVIEW

SECTION I: RESIDENT INTERVIEW

Facility _____ Col. 1-2

Resident _____ 3-4

Date _____ 5-8

month day

TIME INTERVIEW BEGAN: _____ AM PM

Surveyor I.D. card 0 1 9-11

INTRODUCTION

Hello, my name is (YOUR NAME). I am part of a group at Presbyterian-St. Luke's Hospital in Chicago looking at nursing homes and their residents. We are trying to find out what nursing homes are like and how people in them are getting along.

You have been chosen by lot from a list of the residents here to be interviewed. No one here will be told any of the answers you give. All our information is confidential. I would like to talk with you for about half an hour.

Now, some of the questions I will ask may seem easy, others will be harder to answer. I would like you to do your best with all the questions.

1. First, how long have you been here?

3 months or less	1	Col. 13/9
More than 3 months to 6 months	2	
More than 6 months to 1 year .	3	
More than 1 year to 3 years . .	4	
More than 3 years to 5 years .	5	
More than 5 years	6	

	Correct	Incorrect	
2. What is the name of the place you are in?	2	1	14/9
3. In what city is it?	2	1	15/9
4. What year is this?	2	1	16/9
5. And what month is this?	2	1	17/9

Now I am going to show you a picture with a number of objects in it. As I point to each object, I would like you to tell me the name of it. (SHOW CARD A [MEN] OR B [WOMEN])

	Men	Women	Correct	Incorrect	
6.	ring	plate	1	2	18/9
7.	baseball glove	urn	1	2	19/9
8.	shirt	bottle (perfume)	1	2	20/9
9.	brush	iron	1	2	21/9
10.	gun	wrist watch	1	2	22/9
11.	shoe	suitcase	1	2	23/9
12.	belt	boot	1	2	24/9
13.	pipe	mitten	1	2	25/9
14.	can	compact	1	2	26/9
15.	paint brush	hand cream	1	2	27/9
16.	suspenders	cup and saucer	1	2	28/9
17.	tooth brush	hose/stockings	1	2	29/9
18.	axe	key	1	2	30/9
19.	key case	pocket book (purse)	1	2	31/9
20.	handkerchief	hat	1	2	32/9
21.	razor	shoe	1	2	33/9
22.	necktie	tube	1	2	34/9
23.	key chain	apron	1	2	35/9
24.	jack knife	pot	1	2	36/9
25.	hat	necklace	1	2	37/9

TAKE BACK PICTURE OF OBJECTS.

Now tell me from memory all the objects that you just named. (As many as you can.)

(1)	_____	(11)	_____
(2)	_____	(12)	_____
(3)	_____	(13)	_____
(4)	_____	(14)	_____
(5)	_____	(15)	_____
(6)	_____	(16)	_____
(7)	_____	(17)	_____
(8)	_____	(18)	_____
(9)	_____	(19)	_____
(10)	_____	(20)	_____

PLACE CHECK MARKS BY ALL CORRECT RESPONSES BEFORE SCORING.

*26. TOTAL NUMBER OF OBJECTS MENTIONED. 38-39/99

27. TOTAL NUMBER CORRECT. 40-41/99

Now I am going to show you some more pictures. There is something funny or foolish about each picture. I would like you to tell me what is funny or foolish about each picture.

	Correct	Incorrect	
28. UMBRELLA (CARD C)	1	2	42/9
29. SAW (CARD D)	1	2	43/9
30. DIRECTIONS (CARD E)	1	2	44/9
31. SITTING IN RAIN (CARD F)	1	2	45/9
32. CAT AND MICE (CARD G)	1	2	46/9

We are going to do something different now. I am going to say some numbers to you. Listen carefully, and when I am through just say the numbers back to me. For instance, if I say 7-3-6, you would say?

(3) 7-3-6
9-2-5

(4) 2-8-6-1
5-3-9-4

(5) 7-4-2-9-6
8-5-1-6-4

(6) 8-4-2-7-5-1
7-2-9-5-3-6

(7) 7-4-8-2-5-9-1
8-3-9-6-1-5-2

(8) 2-6-9-5-8-3-7-1
3-7-2-9-4-1-5-8

(9) 5-9-4-8-2-7-3-1-6
4-2-9-3-8-6-1-7-5

33. TOTAL NUMBER CORRECT 47-48/99

Now I am going to read some more numbers to you, but instead of saying them as before, I would like you to say them backwards to me. For instance, if I say 1-2-3 you would say 3-2-1. If I were to say 3-9, what would you say?

(2) 3-9
6-3

(3) 7-5-1
2-9-6

(4) 3-5-8-2
9-6-1-7

(5) 4-7-1-8-6
3-9-2-6-1

(6) 6-3-9-1-5-8
4-8-1-6-3-7

(7) 5-4-9-2-7-3-6
2-5-1-9-4-7-3

34. TOTAL NUMBER CORRECT 49/9

Next, I am going to give you a word and I would like you to tell me a sentence that uses the word. For example, if I say house, you could say "We are building a house." If I say old, you could say, "This book is old." Give me a sentence using "car". (RECORD EACH SENTENCE AND CODE BELOW AFTER INTERVIEW IS COMPLETED).

(1) Car _____

_____

(2) Coat _____

_____

(3) New _____

_____

(4) Want _____

_____

(5) Have _____

_____

(6) After _____

_____

(7) Belongs _____

_____

			Correct	Incorrect			No. words	
(1)	Car	35.	1	2	50/9	42.		57-58/99
(2)	Coat	36.	1	2	51/9	43.		59-60/99
(3)	New	37.	1	2	52/9	44.		61-62/99
(4)	Want	38.	1	2	53/9	45.		63-64/99
(5)	Have	39.	1	2	54/9	46.		65-66/99
(6)	After	40.	1	2	55/9	47.		67-68/99
(7)	Belongs	41.	1	2	56/9	48.		69-70/99

	Correct	Incorrect	
Now let's try these:			
49. Show me your left hand.	1	2	71/9
50. Show me your right eye.	1	2	72/9
51. Show me your left ear.	1	2	73/9
52. Show me your right hand.	1	2	74/9
53. Touch your left ear with your left hand.	1	2	75/9
54. Touch your right knee with your right hand.	1	2	76/9
55. Touch your left eye with your left hand.	1	2	77/9
56. Touch your right ear with your left hand.	1	2	78/9
57. Touch your left knee with your right hand.	1	2	79/9
58. Touch your right ear with your right hand.	1	2	80/9

Repeat c
1-9 fro
card 01
10-11/02

	Correct	Incorrect	
59. And, finally, touch your left eye with your right hand.	1	2	13/9

Thank you. Before I go I would like to ask a few simple questions about this place.

First, what things do you like most about this place? (RECORD VERBATIM. IF "NOTHING" ASK: Not even some little things?) (What else do you like? Anything else?)

And what things do you like least about it? (RECORD VERBATIM. IF "NOTHING," ASK: Not even some little things?) (What else do you dislike? Anything else?)

.

CODE VERBATIM ANSWERS BELOW AFTER COMPLETING INTERVIEW.

	Liked Most	Not Mentioned	Mentioned in Both Q.	Liked Least	
60. Physical Plant and facilities	1	2	3	4	14/9
61. Hotel services	1	2	3	4	15/9
62. Treatment services-medical, nursing, rehabilitation	1	2	3	4	16/9
63. Relations with staff (without reference to treatment program)	1	2	3	4	17/9
64. Social activities, things to do (without reference to treatment program)	1	2	3	4	18/9
65. Relations with other residents of facility	1	2	3	4	19/9
66. Relations with family and/or outside friends	1	2	3	4	20/9

NOTE: IF R. ANSWERS "NOTHING AT ALL," "EVERYTHING," "DON'T KNOW," TO BOTH Q., THEN CODE ALL ITEMS "2". IF R. GIVES NON-RESPONSIVE ANSWERS, E.G., DELUSIONAL IDEAS, TO BOTH Q., CODE ALL ITEMS "9".

67. Do you have enough to do here to keep you busy, or do you often get bored?

Enough to do	1	21/9
Undecided, don't know	2	
Often bored	3	

---

68. Do you like the food here, or not?

Yes	1	22/9
Undecided, don't know	2	
No	3	

---

69. Do the nurses and aides do a good job of taking care of you, or not?

Yes	1	23/9
Undecided, don't know	2	
No	3	

---

70. And what about the medical care--does your doctor do a good job of taking care of you, or not?

Yes	1	24/9
Undecided, don't know	2	
No	3	

---

71. Now, taking everything into account, are you satisfied or dissatisfied with this place?

A. UNLESS "DON'T KNOW" OR UNCODEABLE ANSWER

Would you say you are very (satisfied/dissatisfied) or just somewhat (satisfied/dissatisfied) with this place?

Very satisfied	1	25/9
Somewhat satisfied	2	
Somewhat dissatisfied	3	
Very dissatisfied	4	
Don't know, undecided	9	

72. Since you have been here, have you gone away overnight to visit friends or relatives?

Yes	1	26/9
No	2	

---

73. And how often do friends and relatives come to see you--would you say you have visitors less than once a month, once a month or more, or at least once a week?

Less than once a month	3	27/9
Once a month or more	2	
At least once a week	1	

That's all the questions. Thank you again for your time and cooperation.

INTERVIEWER: ANSWER THE FOLLOWING QUESTIONS IMMEDIATELY AFTER HAVING LEFT THE RESPONDENT.

74. Which of the following best describes R's response to the interview?

Made coherent, relevant verbal responses to most items . . .	1	28/9
Made coherent, relevant non-verbal responses to some items . .	2	
Most or all responses were inchoherent and irrelevant . .	3	
Unable to respond at all . . .	4	

---

75. During the memory span and picture absurdities tests, did he appear to be able to see the pictures well enough to respond to the testing?

Yes, without using glasses . . .	1	29/9
Yes, using glasses	2	
No, used glasses during testing	3	
No, did not use glasses	4	

76. Did R appear to be able to hear well enough to understand and respond to your questions?

Yes, without hearing aid . . .	1	30/9
Yes, using hearing aid.	2	
No, using hearing aid	3	
No, did not use hearing aid . .	4	

77. Did he understand English?

Yes	1	31/9
Yes, with difficulty	2	
Not at all	3	

78. During the interview he was

In bed	3	32/9
Confined to a wheelchair or other restraint	2	
Not in bed or restrained in any way	1	

	Yes	Not Applicable	No	
Did you observe that:				
79. R's hair is neatly combed	1	2	3	33/9
80. His clothing is clean	1	2	3	34/9
81. Resident's clothing was neat and appropriate	1	2	3	35/9
82. (MALE) He is clean shaven (FEMALE) Her makeup is neat and appropriate	1	2	3	36/9
83. His fingernails are clean	1	2	3	37/9
84. His fingernails are trimmed	1	2	3	38/9
85. He has matter or sediment in his eyes	3	2	1	39/9
86. He has bad breath	3	2	1	40/9
87. He has body odor (other than bad breath	3	2	1	41/9

	Yes	Not applicable	No	
88. He is dehydrated	3	2	1	42/9
89. His skin color is abnormal (e.g., pale, cyanotic)	3	2	1	43/9
90. He has a Foley catheter	3	2	1	44/9
91. He appears to need treatment for irrigations other than catheter	3	2	1	45/9

92. R appeared to have

All of his teeth or full denture . . . . . 1 — 46/9

Some of his teeth or partial denture 2

No teeth 3

93. R's sex

Male . . . . . 1 — 47/9

Female 2

94. R's race

White . . . . . 1 — 48/9

Black 2

Latin-American 3

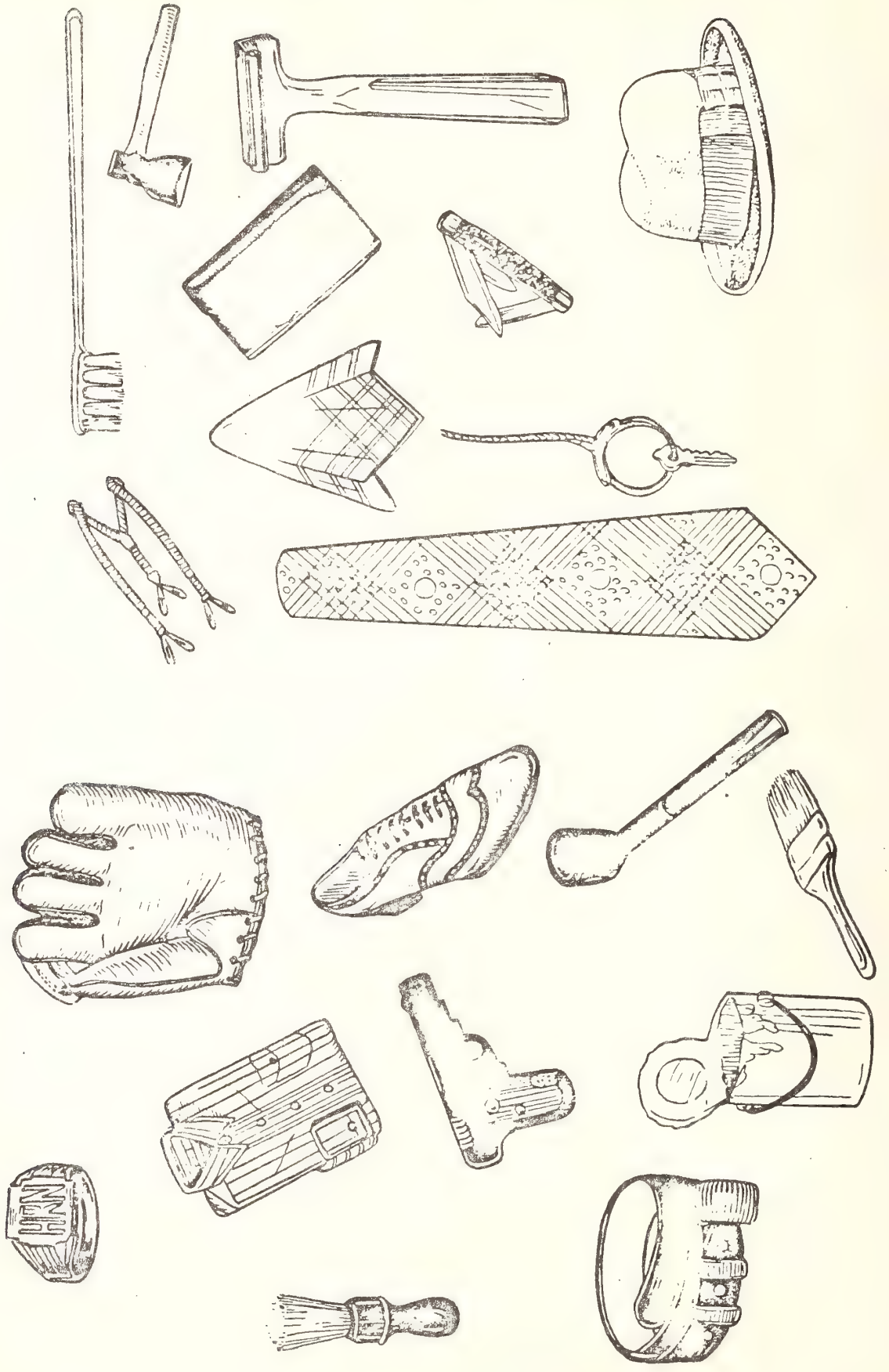
Other (SPECIFY) 4

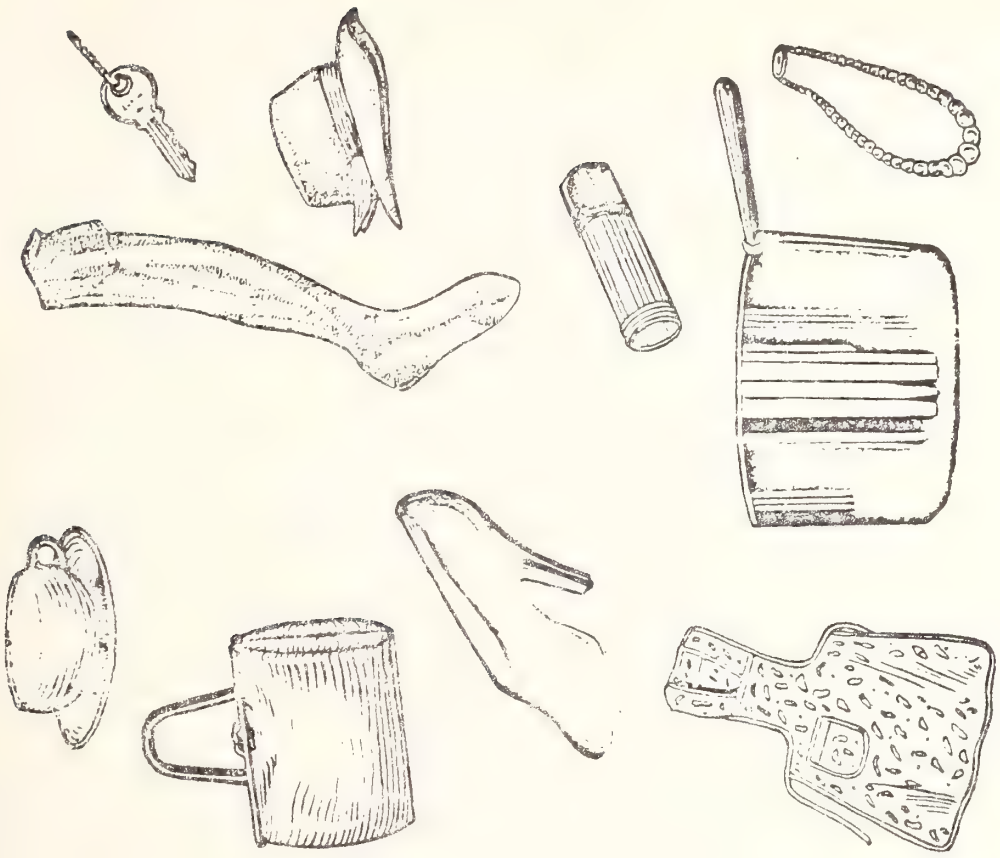
COMMENTS

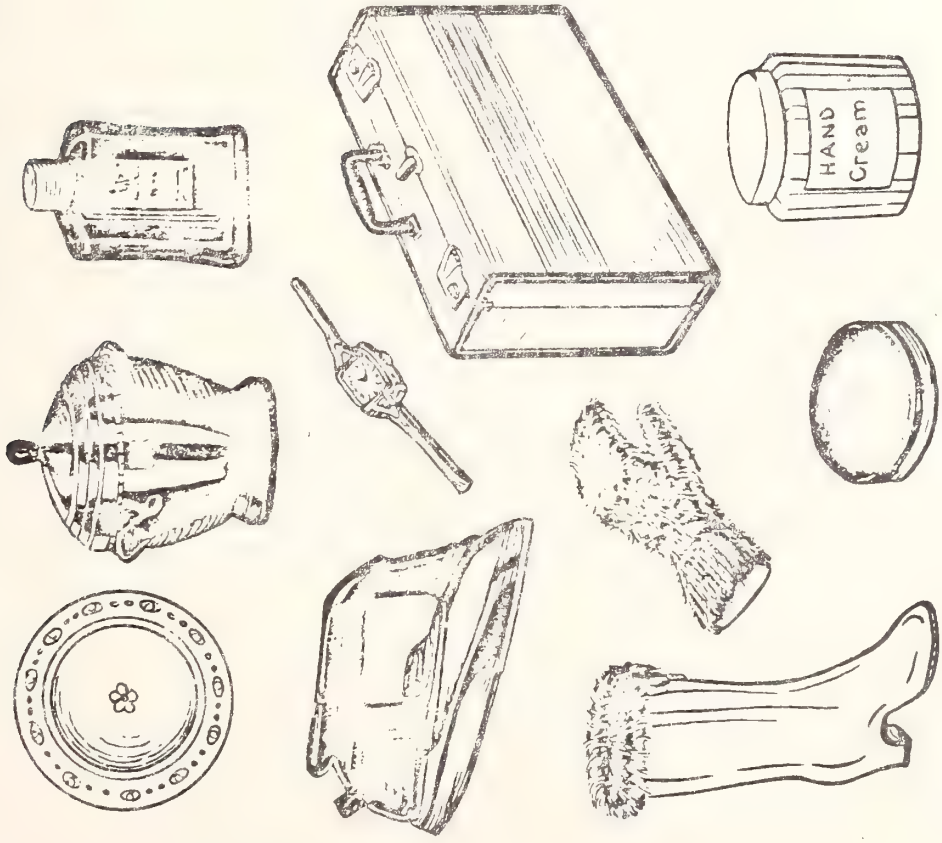
TIME INTERVIEW COMPLETED	_____ AM / PM

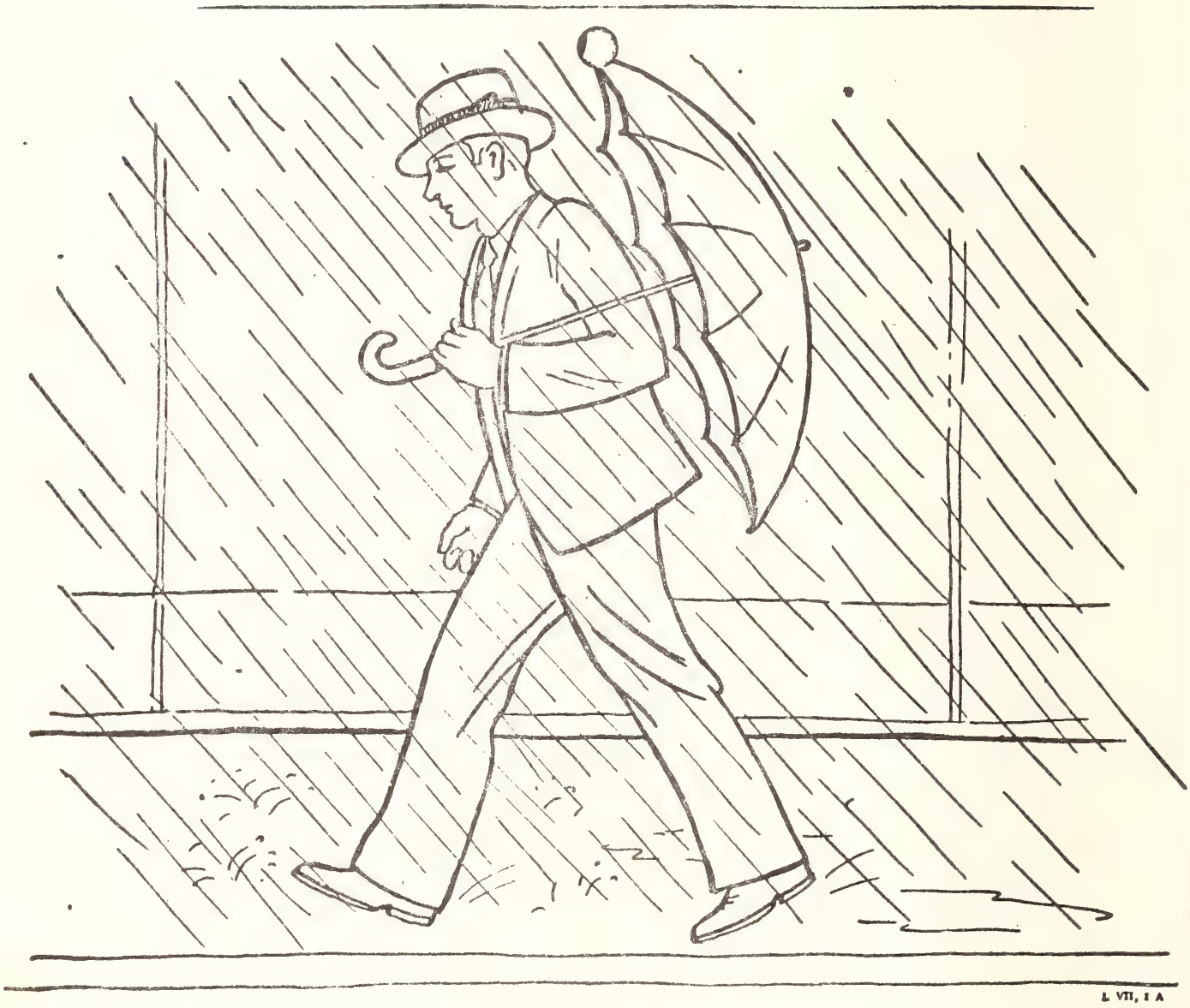
95. Surveyor ID ☐ Col. 49

Signature _____



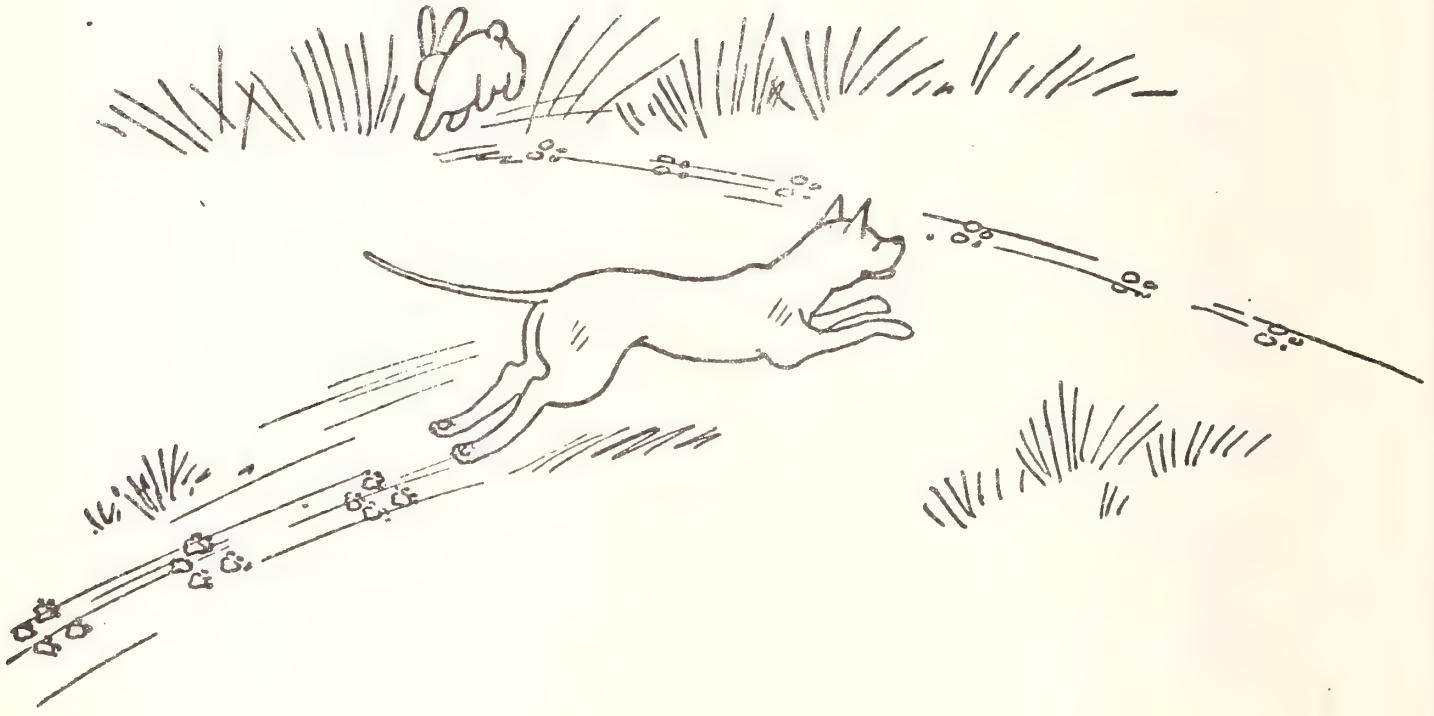



HAND
Cream



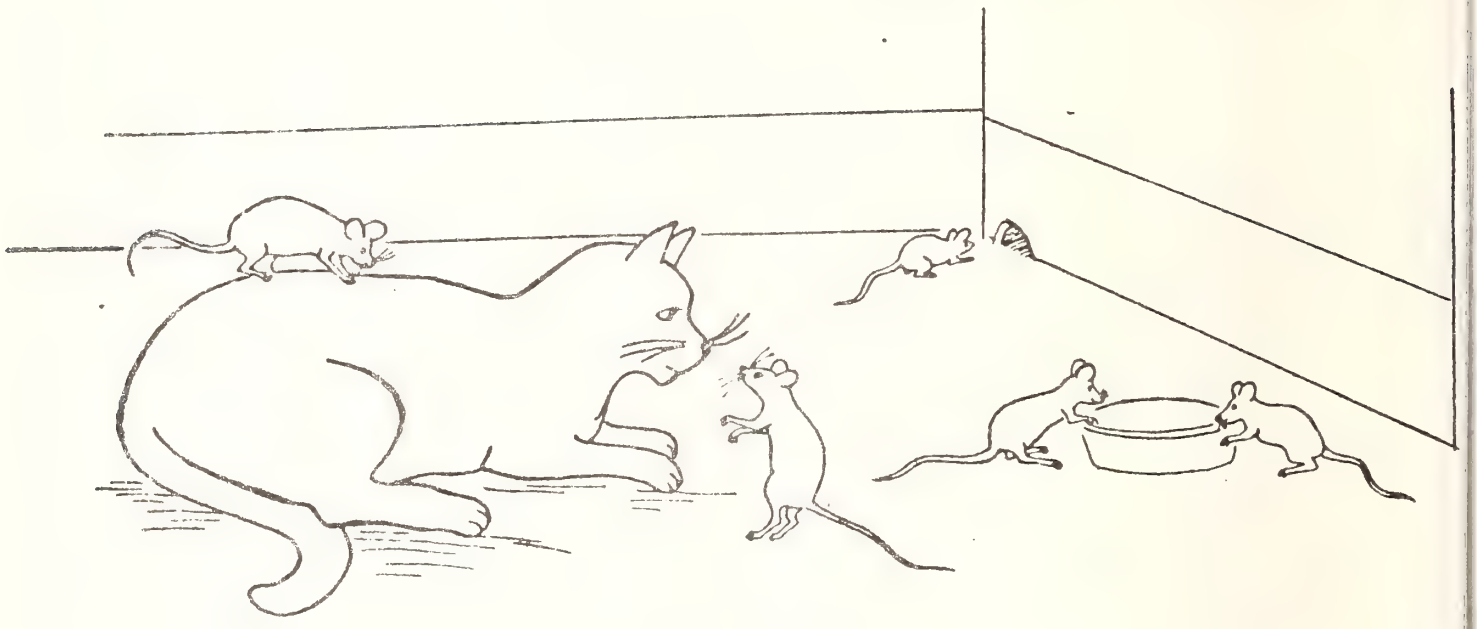
L VII, 1 B

(Card E)



Z VII, 1 C

(Card G)



L-M VII, 1
Card E

24

OMB NO. 68-S72092

APPROVAL EXPIRES 11-31-73

Rush-Presbyterian-St. Luke's Medical Center

PATIENT REVIEW

SECTION II: MEDICAL RECORD INFORMATION

Facility _____ Col. 1-2

Resident _____ 3-4

Date _____ 5-8

month day

TIME BEGAN _____ AM PM

Surveyor I.D. card 03 9-11

96. Date of admission to this facility ☐☐ ☐☐ 13-16/9999

year month

---

97. Admitted from:

Private dwelling 1 17/9

General hospital 2

VA hospital 3

Psychiatric hospital (includes state mental hospital 4

Another LTC 5

Other (SPECIFY) 6

Not indicated in record 9

---

98. Does the record indicate resident was treated previously in a hospital or rehabilitation facility. If so, most recent date of discharge was

More than 6 months ago 1 18/9

3-6 months ago 2

Less than 3 months ago 3

Not indicated in record 9

99. Does the record show a diagnosis of, or evidence of treatment for, an acute illness or injury as defined in the IDPH patient review regulations for physical rehabilitation needs? These include fractures of hip, pelvis, and extremities; acute brain trauma (to include spinal cord injuries or neurological disorders, but not to include congenital brain disorders); cerebral vascular accidents with resulting aphasis and/or hemiphegia; amputees requiring pre- and post-prosthetic care and training.

Yes 2 19/9

No 1

---

100. Does the record show a diagnosis of functional psychiatric disorder? (This does not include organic disorders such as CBS, OBS, senility, or retardation).

Yes 2 20/9

No 1

Are there current written physician's orders for:

101. Medications (oral, ointments, drops, suppositories)

Never 1 21/9

Less than once daily (ANSWER A) 2

Daily (ANSWER A) 3

102. A. Is there written permission for the resident to self-administer their medications

Yes 1 22/9

No 2

---

103. Injections (IM or hypodermic)

Never 1 23/9

Less than once a day (ANSWER A) 2

Daily (throughout the month) (Answer A) 3

104. A. Is there written permission for the resident to self-administer a hypodermic medication

Yes 1 24/9

No 2

Are there current written physician's orders for:

Tranquilizers (phenothiazines or minor tranquilizers):

105. On a regular basis (e.g., tid, qd, q 2 weeks)

Yes 2 25/9

No 1

---

106. PRN

Yes 2 26/9

No 1

---

107. Intravenous or subcutaneous fluids

No order 1 27/9

To be given by physician . . . 2

To be given by RN on physician's order 3

---

108. Suctioning

No order 1 28/9

Self-care or with minimum assistance. That is, when a patient has adapted to such a degree that he is able to care for himself with only assistance by the nursing staff for special maintenance procedures such as the cleansing for tracheostomy 2

Less than daily suctioning but done by nursing staff 3

Daily 4

---

109. Oxygen (including Positive Pressure)

No order 1 29/9

Less than daily or with minimum assistance. Such as O_2 on stand-by for emergency use, or when the recipient is able to administer his own O_2 and/or positive pressure treatments with supervision and minimum assistance . . 2

Daily or when the recipient receives O_2 and/or positive pressure treatments on a daily basis, administered by the nursing staff 3

Are there current written physician's orders for:

110. Dressings and/or Appliances

None or occasional small dressing (Bandaid and/or area effectively covered by a 4X4) . . . 1 30/9

Regular application and/or assistance with appliance (braces, supports, prosthesis). Daily application of Ace bandages, or cast care 2

Dressing to a moderate sized area (an area effectively covered by a 4X8 or ABD pad) or continuous moist dressing or soaks such as the kind that might be ordered for decubiti and recurrent leg ulcers; and daily colostomy dressings 3

Comprehensive dressings that require regular daily attention by an RN or LPN (implying the use of sterile technique). For example, post skin graft dressing or post burn dressings; or if the wound is of such a size that it is most effectively covered by an abdominal pad combine 4

---

111. Any of the following rehabilitative nursing procedures to be performed by nursing personnel: Range of motion exercises, positioning program, transfer activities, gait training, parallel bars, pulleys, speech training for an aphasic

Yes 2 31/9

No 1

---

112. Douche, enema, or colostomy irrigation

None or occasionally 1 32/

Less than daily 2

Daily 3

Are there current written physician's orders for:

113. Catheterizations and/or bladder irrigations

Never 1 33/9

Occasional, for specimen and for short time treatment, such as an indwelling catheter for a short term physical condition such as an excurbation and Multiple Sclerosis in which there is loss of bladder control 2

Continuous use of a retention catheter and full care of the catheter and irrigations 3

---

114. Bowel and bladder retraining program

No order recorded 1 34/9

Order dating back more than 6 months and still current . . 2

Current order dating back less than 6 months 3

Past order, not still current . 4

---

115. Diet

Regular, soft, bland, low salt, pureed, ground and/or non-chewy 1 35/9

Special diets such as salt free, weighed or calculated 2

Tube feeding or gastrostomy feeding 3

Does the chart or Kardex show evidence that the resident has:

116. Dentures

Full 3 36/9

Partial 2

None 1

---

117. Hearing Aid

Yes 2 37/9

No 1

Does the chart or Kardex show evidence that the resident has:

118. Prosthesis such as false eye, false limb/or portion thereof, other body part

Yes 2 38/9

No 1

Does the patient care plan:

119. State specific long and short term rehabilitative/restorative nursing care goals?

Yes 2 39/9

No 1

120. Include:

Current bowel and bladder retraining program? 3 40/9

Reference to care needed to maintain bowel and bladder control subsequent to a previous retraining program? 2

No reference to bowel and bladder retraining? 1

121. Include specific rehabilitative nursing procedures as defined in Q. 111?

Yes 2 41/9

No 1

122. Does the facility have an IDPH approved nursing rehabilitation program? (Code from Facility Survey Q.86)

Yes 2 42/9

No 1

COMMENTS

TIME COMPLETED	AM PM

Signature _____

OMB NO. 68-S72092

APPROVAL EXPIRES 11-31-73

Rush-Presbyterian-St. Luke's Medical Center

PATIENT REVIEW

SECTION III: STAFF INTERVIEW

Facility _____ Col. 1-2

Resident's name _____ 3-4

Date month day 5-8

TIME INTERVIEW BEGAN _____ AM PM

Surveyor's ID card 0 4 9-10

INTRODUCTION

Hello, my name is (YOUR NAME). I am part of a group at Presbyterian-St. Luke's Hospital in Chicago looking at nursing homes and their residents. Part of our job is to find out about some residents we have selected by lot from a list of those here. I would like to ask you some questions about (RESIDENT'S NAME). (ADMINISTRATOR'S NAME) told me you would be a good person to answer them and he would like you to spend about 20 minutes with me. No one else here will be told any of the answers you give. All our information is confidential.

123. Does (RESIDENT) ever walk by himself-without any help from another person or from a device like a walker or crutches-or not?

Yes (ASK A) 1 13/9

No (ASK B) 2

124. A. Does he walk by himself all the time or only sometimes?

All the time (ASK A-1) 1 14/9

Only sometimes (ASK A-2) . . . 2

125. A-1. Is the way he walks normal for someone his age, is it worse than others his age but not bad enough to slow him down, or is he slower than others his age?

Normal 1 15/9

Worse than others 2

Slower than others 3

126. A-2. When he does walk by himself, does he go a short distance--say 15 or 20 feet--without holding on to anything, does he sometimes hold onto something, or does he always hold on to something to go a short distance?

Never 4 16/9

Sometimes 5

Always 6

127. B. Does he ever walk with a device like a walker or with help from another person, or not?

Yes (ASK B-1) 3 17/9

No (ASK B-2) 4

128. B-1. Does he walk with crutches or a walker but without any help from another person, or not?

Yes 1 18/9

No 2

129. B-2. Is he ever up in a chair or wheelchair, or not?

Yes (ASK B-2-a)	3	19/9
No	4	

130. B-2-a. Does he need some help to get into the chair or wheelchair, or a lot of help?

Some help	1	20/9
A lot of help	2	

---

131. All your residents must have a morning routine, which includes things like washing up, brushing their teeth, shaving, and combing their hair. Does (RESIDENT) do these things without any help, does he need some help to do them, or does someone have to do everything for him?

No help (ASK A)	1	21/9
Some help (ASK B)	2	
Everything for him (ASK C) . .	3	

132. A. Does he do these things easily, does it take some extra time to do them, or does it take a lot of extra time and sometimes lead to accidents?

Normal	1	22/9
Some extra time	2	
A lot of extra time	3	

133. B. Does he do most of these things alone, does he do some things by himself and others with help, or does he do most things only with help?

Most alone	4	23/9
Some alone	5	
Most only with help	6	

134. C. Does he stay clean and neat when someone does everything for him, or not?

Yes (ASK C-1)	7	24/9
No	8	

135. C-1. Does he help the person who does these things for him, or not?

Yes	1	25/9
No	2	

136. Would (RESIDENT) need help to take a bath, or not? (IF YES: Does he need a bed bath or can he take a tub or shower bath when he has help?)

Yes, bed bath	3	26/9
Yes, help with tub	2	
No	1	

---

137. Does he get dressed all by himself, does he need some help to get dressed, or does he have to have someone else dress him completely?

By himself (ASK A)	1	27/9
Some help (ASK B)	2	
Someone else (ASK C)	3	

138. A. Does he get dressed easily, does it take him a little extra time to get dressed, or does it take him a lot of extra time to get dressed?

Easily	1	28/9
Little extra time	2	
A lot of extra time	3	

139. B. Does he need only a little help to get dressed, like tying a shoelace or buttoning buttons, does he need more help than that, or does he need help with everything?

Little help	4	29/9
More help	5	
Help with everything	6	

140. C. When someone dresses him, does he give a lot of help with his bodily movements, some help, or no help at all?

Lot of help	7	30
Some help	8	
No help at all	1	

---

141. Does (RESIDENT) eat a regular diet with the usual foods, or does he eat only soft foods or liquids?

Normal (ASK A) 1 31/9

Soft or liquids (ASK B) 2

142. A. Does he eat the usual kinds of foods easily, does he take some extra time to eat them, or does he take a lot of extra time?

Easily 1 32/9

Some extra time 2

A lot of extra time 3

143. B. Does he get soft foods and liquids down easily, does he have trouble getting them down, or does he need a tube feeding or some other special procedure?

Easily 4 33/9

Has trouble 5

Tube feeding 6

---

144. Does he eat by himself or does he need help from another person to eat?

By himself (ASK A) 1 34/9

Needs help (ASK B) 2

145. A. Does he feed himself without any trouble, does he eat somewhat more slowly than others, or does he eat very slowly and have some accidents?

No trouble 1 35/

Somewhat slowly 2

Very slowly 3

146. B. Does he need only a little help, such as help cutting food or pouring liquids, does he need more help than that, or does someone have to do everything for him and stay with him for the whole meal?

Little help 4 36/

Lot of help 5

Complete assistance 6

147. Does he have all of his own teeth, some of his own teeth, or none of his own teeth?

All 1 37/9

Some (ASK A) 2

None (ASK A) 3

148. A. Does he have false teeth or dentures--does he have a full set, a partial set, or none at all?

Full set (ASK B) 1 38/9

Partial set (ASK B) 2

None 3

149. B. Does he wear his dentures most of the time, or not?

Yes 1 39/9

No 2

---

150. Now I would like to ask about his appetite. Does he usually eat most of his meal, does he usually eat only a small part of his meal, or does he usually not eat at meal time?

Most of meal 1 40/9

Small part 2

Does not eat 3

---

151. Does the patient ever communicate in any manner--including writing or gesturing--well enough to make himself easily understood? (IF YES, ASK: Does he do so almost always or just sometimes?)

Never 3

Just sometimes 2

Almost always 1

152. Does he talk so others can understand him, or not?

Yes (ASK A) 1 42/9

No (ASK B) 2

153. A. Is it easy to understand what he is saying, or is it difficult to understand him?

Easy 1 43/9

Difficult 2

B. Does he try to say things that others can understand, does he only make nonsense sounds, or does he not make any sounds at all?

Tries to communicate 3 44/9

Just noise 4

No sound 5

---

155. Does he hear all right without using a hearing aid?

Yes 1 45

No . . . . . (ASK A)

A. Does he have a hearing aid and use it?

Yes . . . . . (ASK B)

No 4

B. Does he hear all right with a hearing aid?

Yes 2

No 3

---

156. Does he see all right without wearing glasses or contact lenses?

Yes 1

No . . . . . (ASK A

A. Does he have glasses or contact lenses and use them?

Yes . . . . . (ASK B)

No 4

B. Does he see all right wearing glasses or contact lenses?

Yes 2

No 3

GO TO NEXT PAGE

Does (RESIDENT) always have control of his bladder, or not? (IF NO, ASK: Does he have accidents once in a while, does he have them sometimes but not every day, or does he have them every day?) (REPEAT FOR BOWEL CONTROL: And does he always have control of his bowels . . .)

		Never	Once in a While	Sometimes	Everyday	
157.	Bladder	1	2	3	4	47/9
158.	Bowels	1	2	3	4	48/9

159. Does he ever need laxatives? (IF YES: Does he need them once or twice a week, or three or more times a week?) 49/9

Never 1

Once or twice 2

Three or more 3

160. Does he need any special care for bedsores or infected skin areas? (IF YES: Does he need treatments once in a while or does he need them often?) 50/9

No 1

Yes, once in a while 2

Yes, often 3

161. Thinking about this week, does he get any special treatments, or not? 51/9

Yes (ASK A) 2

No 1

162. A. When he gets his treatments, is there an LPN or RN on the floor, or not? 52/

Yes 2

No 1

163. Since (RESIDENT) came to this facility, has his <u>physical</u> condition gotten better, remained the same, or gotten worse? 5

Better 1

Same 2

Worse 3

Now I'd like to ask about what (RESIDENT) does.

164. How often does he read books or magazines-- would you say never, sometimes, or often?

Never	3	54/9
Sometimes	2	
Often	1	

---

165. Does he ever play games or work on hobbies or anything like that? (IF YES, ASK: Does he do these things almost every day, or just sometimes?)

Every day	1	55/9
Sometimes	2	
Never	3	

---

166. Does he have any friends among the other residents here-- people he seems to talk to or visit with a lot-- or doesn't he have any friends? (IF YES: Does he have more than one friend, or only one friend?)

Yes, more than one	1	56/9
Yes, one	2	
No	3	

---

167. How often does he talk with other people-- would you say often, sometimes, or almost never?

Often	1	57/9
Sometimes	2	
Almost never	3	

---

168. How often does he start conversations with other people-- would you say often, sometimes, or almost never?

Often	1	58/9
Sometimes	2	
Almost never	3	

169. How many staff members does he know by name-- does he know more than one, only one, or none of the staff by name?

More than one	1	59/9
One	2	
None	3	

170. How often does (RESIDENT) have friends or relatives come to see him-- would you say he has visitors less than once a month, once a month or more, or at least once a week?

Less than once a month	3	60/9
Once a month or more	2	
At least once a week	1	

171. Since he has been here, has he gone away overnight to visit relatives or friends?

Yes	1	61/9
No	2	

172. Do you know what (RESIDENT) did for a living? (IF YES: What did he do?)

Knows	1	62/9
Doesn't know	2	

173. And can you tell me his religion? (UNLESS STATED: What religion is he?)

Knows	1	63/9
Doesn't know	2	

174. Does (RESIDENT) ever help out with any of the chores here-- more than just doing what everybody is expected to do to take care of himself-- or not? (IF YES: Would you say he sometimes helps out or often helps out?)

Never	3	64/9
Sometimes	2	
Often	1	

175. Does he sometimes sleep during the day, does he often sleep during the day, or does he usually sleep most of the day?

Sometimes	1	65/9
Often	2	
Most of the day	3	

176. Does he sleep most of the night, is he sometimes awake at night, or is he often awake at night?

Most of night	1	66/9
Sometimes awake	2	
Often awake	3	

177. Does he often get up at night and wander, does he sometimes wander at night, or does he rarely wander at night?

Often	3	67/9
Sometimes	2	
Rarely	1	

178. Is his behavior often worse at night than in the daytime, sometimes worse at night, or never worse at night?

Often	3	68/9
Sometimes	2	
Never	1	

179. How often does he appear to be confused-- that is, he can't find his way around, or he loses things, and so on-- would you say he is almost never confused, sometimes confused, or often confused?

Almost never	1	69/9
Sometimes	2	
Often	3	

180. Does (RESIDENT) ever have to have some one watch him closely because of the way he acts, or not? (IF YES: Does he have to be watched sometimes when he is excited or distracted, or does he have to be watched all the time?)

No	1	70/9
Yes, sometimes	2	
Yes, all the time	3	

Does he ever (disturb other residents or staff by shouting or yelling?) (IF YES, ASK: Does he do this often or just sometimes?) (REPEAT FOR B-D BELOW).

		Never	Sometimes	Often	
181.	A. Disturb other residents or staff by shouting or yelling?	1	2	3	71/9
182.	B. Take things from other residents or staff?	1	2	3	72/9
183.	C. Verbally threaten to harm other residents or staff?	1	2	3	73/9
184.	D. Physically try to harm other residents or staff?	1	2	3	74/9

185. If this resident had help from his family or from professional people like nurses or therapists, or from a housekeeper, could he get along outside a place like this one, or not? (IF YES, ASK: Could he get along outside without too much help from anyone, or would he need a lot of help to get along?)

No 1 75/9

Yes, a lot of help 2

Yes, not too much help 3

186. Would you say that (RESIDENT) is in this place mostly because of the way he acts and the things he does, or mostly for other reasons?

Way he acts 2 76/9

Other reasons 1

187. Since he came to this facility, has his mental condition gotten better, remained the same, or gotten worse?

Better 1 7

Same 2

Worse 3

188. Now I have three short questions about you. First, do you usually work the day shift, afternoon shift, or night shift?

Day 1 78/9

Afternoon 2

Night 3

Repeat col. 1- from card 0 10-11/0

189. And how long have you worked here?

Less than one month 1 13/9

One month-less than 3 months . . . 2

3 months-less than 6 months . . . 3

6 months-less than 1 year 4

1 year-less than 3 years 5

3 years or more 6

---

190. Finally, what is your exact job title?

_____ ☐☐ 14-15/99

INTERVIEWER: COMPLETE THE FOLLOWING AFTER LEAVING THE INFORMANT.

191. Informant's Sex

Male 1 16/9

Female 2

---

192. Race

White 1 17/

Black 2

Latin-American 3

Other (SPECIFY) 4

193. In general did he/she appear to understand the questions, or not?

Yes 1 18/9

No 2

194. In general, did he/she appear to know this particular resident well enough to answer the questions?

Yes 1 19/9

No 2

COMMENTS

.

TIME INTERVIEW ENDED	AM PM

Signature _____

PATIENT ITEM SPECIFICATIONS

The following section specifies the procedures which must be followed to accomplish the psychological assessment and obtain the necessary patient review data. The surveyor behaviors described must be adhered to in order to obtain useable, reliable and valid patient data. Any variation in the specifications results in inaccurate information.

General Directions (Item I-194)

(1) Do Resident Interview (Section I) first. Be sure you have your cards A thru G.

(2) Ask the charge nurse on the unit on which the resident is housed who has been assigned to the resident that day and interview that staff person. Try to talk to a nurse aide rather than the charge nurse and/or LPN/LVN.

(3) Do indicate to the charge nurse in advance that you will need to look at the Kardex (if one exists) and the residents' charts. Try to use these when it is convenient for the staff.

(4) Medical Record Information (Section II) may be accomplished at any time during the survey after the resident interview is completed.

(5) Know the survey so well that you do not have to read the introductory, explanatory, or open ended questions to the resident. You may not paraphrase. Memorize it exactly as it is written and practice till you are letter perfect. Variations in delivery will change the focus of the questions and obtain useless and inaccurate data.

(6) Remember to use the word resident - not patient, and to use the correct sex when interviewing the staff about the resident. View the resident as a person not as an "s" of a survey. This way you will obtain better data.

SECTION I PATIENT REVIEW

RESIDENT INTERVIEW

General Directions (Items 1-95)

(1) Resident to be randomly selected from the census. (See Chapter 12 for random sampling procedure.)

(2) In general, on the psychological tests, (questions 2 through 59) any attempt to respond to the question is scored - no matter how wide of the mark. Questions are coded "no answer" (9) when no response at all is made. A problem will arise scoring respondents who agree to cooperate and then become uncooperative during the testing. This is difficult because a conscious rational decision not to continue should result in "no answers", while a sudden or gradual loss of contact with reality during the testing, leading to irrelevant answers, should result in "incorrect" or "failing" answers to the psychological questions.

(3) Policy for the exclusion of residents:
Residents are to be excluded from the sample only if:

(a) They are not present in the facility on the day of the survey.
(b) They refuse to participate as a matter of conscious choice (This implies they are capable of making such a choice.)

Proceed to the next available alternate listed.

The resident may refuse to the surveyor and/or the staff. In most instances, it will be the surveyor as the resident, the staff, and the surveyor do not know who will be in the sample until the day of the survey. (See suggested format for survey day Chapter II, Section b). Allow about two minutes to persuade an obstinate resident. In no instance cajole or threaten a resident!

Residents who are unable to respond to all or part of the testing and attitude questions are to be included in the sample and scored according to the following 5 rules:

1. Deafness

If R is deaf and cannot hear or lip-read any of the questions (even wi hearing aid), then score Q.1-73 as "no answer" (9)

2. Physical Disability

(a) If able to hear questions but physically unable to give answers any questions at all (even by pointing, raising fingers, clickin teeth, wiggling toes, etc.), then score Q.1-73 as "no answer" (

(b) If R is able to respond to some questions but not all (eg., able to nod yes or no or point, but unable to verbalize any answers), then score those questions to which answers are obtained, and code the ones to which the respondent physically cannot respond as (9).

3. Blindness

If R is blind and cannot respond to picture tests, score these tests "no answer" (9).

4. Dementia

If by reason of mental incapacity the respondent fails to respond, or gives demented and irrelevant responses that just do not answer the question, then code as follows:

Q (01)	no answer	(09)
Q (02-25)	incorrect	(02)
Q (26-27)	none	(00)
Q (28-32)	incorrect	(02)
Q (33)	none	(00)
Q (34)	none	(0)
Q (35-41)	incorrect	(02)
Q (42-48)	score # words in response, or if no response score	(00)
Q (49-59)	incorrect	(0)
Q (60-73)	no answer	(09)

5. Language barrier

If the resident does not understand and/or speak English but can answer in another language, the same rules apply to both the attitude and psychological questions.

(a) You are allowed to use interpreters, your own language skills, gestures, phonetic symbolism, or any other device, to get codeable answers.

(b) When in doubt, code an answer into the most likely response category.

Do not code as "failures" or "incorrect" answers on the psychological tests any responses made problematical by a language barrier. Ask the resident to explain again or in more detail his answer. Ask the resident to describe his opinion, etc.

(c) When you cannot get any translatable clues at all, code as "no answer" (9)

The two general principles underlying these rules are as follows:

(a) Distinguish between the resident whose non-responses or irrelevant responses are due to physical incapacity - deafness, blindness, aphasia - and those whose non-responses or irrelevant responses are due to mental incapacity - senility, psychosis.

Treat the former under rules (1) - (3) above.

Treat the latter under rule (4) above.

(b) Rule (4) distinguishes between non-responses to the information/attitude questions (1, 60-73) and the psychological tests (2-59). "Crazy" answers to the former are treated as no answers. "Crazy" answers to the latter are treated as incorrect or failing responses.

DIRECTIONS FOR INTERVIEWING RESIDENTS

(a) Be sure you have the correct resident. Most facilities do not tag beds, doors, and/or residents - Ask the personnel to help you.

(b) Introduce yourself to the resident and say "you have not met met before." Many residents have some memory impairment and you will make it easier for them by assuring them that you are a a stranger.

(c) Take 2 minutes to gain his/her rapport. Just 2 minutes will make the balance of your interview easier and more productive - compliment them in some way -

Dress
Neatness of room
Look for some personal item in room and take an interest - picture, hobby, etc.

(d) Use the resident's last name and title, Mr., Mrs., Dr., Rev., etc., when initiating the interview. Take time to make the resident feel comfortable.

(e) Be sure that if the resident uses eye glasses or a hearing aid that he/she has them on and that the area where you are interviewing is adequately illuminated.

(f) Make some effort to assure the residents privacy and to minimize interruptions during the interview. Close the door to the room - Draw curtains if there. Turn off radio and T.V. if possible. Always sit so patient is facing away from distractions.

(g) Be sure the resident is seated across from you so that you can maintain eye contact during the interview.

(h) As you proceed through the interview attract the resident's attention (get eye contact) by saying his/her name before you ask each question or set of questions. An alternative is to ask him/her if he/she is "ready." You may find that you will have to do this for each question or only at intervals.

(i) It is necessary to achieve a consistant administration of the test. Therefore, keep cadence and volume constant during test question itself, but do not be monotonous and boring between questions. That will lose the residents attention and cooperation. Accordingly, do not use adaptive communication techniques useful in dealing with the aged to influence your administration of this test. If you slow down, talk louder, use expanded speech, etc. the test results will be invalid. Follow the specific instructions for each set of questions to minimize distortions.

(1) Questions 1 to 5. After stating the introductory material to the resident ask him/her the questions and circle appropriate answers. Attempt to include verbatim statements. If you make notes, write them on the side away from the coding column when possible to facilitate data processing and prevent processing errors. See general directions for coding for deafness, physical disability, blindness, dementia, and language barriers.

(2) Questions 6 to 27. Equipment: Males Card A; Females Card B
After making the introductory statements to the resident hand him/her the appropriate set of pictures. Help him/her hold them if he/she is unable to do so. Point with your pencil to each object in the order listed on the questionnaire and state "Tell me the name of this object". Allow $2\frac{1}{2}$ to 3 minutes for the questions 6 through 25. As the resident answers code the response. If the resident repeats a correct answer more than once, it is scored only once. When the resident has finished take the picture back and place it out of sight. Say, as indicated in the instrument, "Now tell me from memory all the objects that you just named. As many as you can." List the resident's responses. Do not let on that an answer is wrong, if incorrect. When he/she has finished draw a line under the last item recalled and say, "Let me repeat the ones you have named." Repeat the list back to him/her as he/she gave it. Then say, "Can you think of (recall) any more now?" Continue to list below the line any other responses.

Note correct responses by checking against the lists of examples of acceptable responses. Do this task and answer questions 26-27 after you have finished with the resident or at the end of the day when you review your data schedules.

It is important to remember that what is correct for question 27 is dependent upon what the resident labled the object in question 6 through 25.

Example:

> If tooth brush is called a crow bar and remembered as a crow bar, then it is wrong for #17, but correct for #27.

The lists of examples of acceptable responses must only be considered guidelines. Reasonable thoughtfulness on the part of the surveyor is a criteria in scoring. eg., If a ring is called a finger band is it wrong or correct? Better it be correct! The purpose of test is to determine proper perception and number remembered.

LIST OF EXAMPLES OF ACCEPTABLE RESPONSES FOR

MALE RESIDENTS

CARD A

1. Ring
2. Baseball Glove - Mitt - Sports Glove
3. Shirt
4. Brush - Shaving Brush - Clothes Brush
5. Gun - Revolver - Pistol
6. Shoe - Oxford
7. Belt
8. Pipe
9. Can - Bucket - Pail - Paint Can - Paint Bucket - Paint
10. Paint Brush - Brush
11. Suspenders - Braces
12. Tooth Brush
13. Axe - Hatchet
14. Key Case - Wallet - Pocketbook - Razor Case
15. Handkerchief - Napkin - Scarf
16. Razor
17. Necktie - Tie
18. Key Chain - Key Ring - Key
19. Jack Knife - Pocket Knife - Knife - Boy Scout Knife
20. Hat - Homberg - Derby - Bomber-cap

LIST OF EXAMPLES OF ACCEPTABLE RESPONSES FOR

FEMALE RESIDENTS

CARD B

1. Plate - Dish - Platter - Clock
2. Urn - Sugar Bowl - Ice Bucket - Tureen - Te pot - Samovar - Bean Pot - Jug Candy Dish - Jar - Coffee Pot - Covered Dish
3. Bottle - Bath Oil - Perfume
4. Iron
5. Wrist Watch - Watch - Timepiece
6. Suitcase - Valise - Luggage - Bag - Case - Satchel - Grip - Briefcase
7. Boot - Overshoe - Galoshes
8. Mitten - Glove
9. Compact - Shoe Polish - Cooky - Jar Top - Cake - Powder Puff
10. Hand Cream - Jar - Cold Cream
11. Cup and Saucer - Drinking Cup
12. Hose - Stocking
13. Key - Key Ring - Key Chain
14. Pocket Book - Purse - Bag - Handbag
15. Hat
16. Shoe - Rubber - Pump - Slipper
17. Tube - Lipstick - Flashlight
18. Apron
19. Pot - Cooking Pan - Saucepan - Kettle
20. Necklace - Beads - Pearls - Choker - Chain

(3) Questions 28 through 32. Equipment: Cards C through G
After making the introductory statements to the resident hand him/her the cards as listed in the instrument. Be sure to give him/her only one at a time. Hold them for the resident if he/she is unable to do so. Ask him/her each time if necessary, "What is funny or foolish about this picture?"

The introductory statements and instructions may be repeated one or two times for the first card until you are sure that the resident understands the instructions.

If resident gives 2 or 3 answers to a single picture, take a correct answer - because the purpose is to determine level of functioning.

Allow the resident to hold the card for at least a minute to a minute and a half before scoring no response. See general directions for coding for deafness, physical disability, blindness, dementia, and language barriers.

(4) Questions 33 and 34. After going through the introductory statements administer the test following the directions carefully. The explanation and example in the instrument may be repeated two or even three times until you are sure that the resident understands the instructions. After that do not repeat!

a) Never repeat numbers after the example has been given.

b) Learn to speak the numbers at a one number per second rate - The cadence is one number per second. Do not group! Do not vary your rate!

Correct: 5-9-4-8-2-7-3 etc.

Incorrect: 5-9-4--827---3 etc.

c) Ask if ready before giving each series i.e. "Are you ready?"

Example: "Are you ready?" Obtain eye contact and read, "2-8-6-1". If this is missed give 5-3-9-1. If 2-8-6-1 was repeated correctly go on to 7-4-2-etc. If series 5-3-9-1 is also missed draw a line underneath the last correct series and enter the number in ( ) as the answer to Total Number Correct. i.e. draw a line under 736 series and 925 code #(03). If none are correct, score 00.

d) Give only one number series of each length unless error is made then give a second number of that length. If the individual is unable to do the first series in the digit forward group do not attempt digits backwards. The same instructions apply to the igits backwards as to digits forwards, but be sure to give the instructions at least three times if this is necessary.

If the resident misses on the 3-9 series, repeat the instructions with 1-2-3 in the instrument one more time. If the resident then misses the 6-3 series go to the next section of the test and score Question 34 as 00.

Note it is helpful when attempting to determine if the answers have been correct or not to write the numbers down next to the series as they are said by the resident. This is also helpful for your data review later in the day.

(5) Questions 35 through 48. Read the explanatory material to the residents and then ask for the first sentence. Example: "Next .....Give me a sentence using car." If the resident does not give you a correct sentence go back to the instructions on "house" and give him/her the information again and ask again for a sentence using car. Record this material verbatim. If the answer is not a complete sentence tell the resident and mark an X after what he/she did say. Then continue to write what they do say. If what is said is extensive, record the sentence using the word and one or two seconds more of verbatim.

Try each word in the list - continue even if the content seems incorrect. Make an attempt to obtain a verbatim record. Note that "new" may be misunderstood as "knew". This is acceptable if used correctly.

If the resident does not respond, repeat the instructions at least two more times and then write in no response for the first word.

Try the other words in order using the words, "Give me a sentence ..." each time.

Scoring 35 through 41 - Read sentence and see if the word has been used in a complete sentence (subject, predicate, verb) correctly.

Scoring 42 through 48 - Count the total number of words in each sentence and record total number.

(6) Questions 49 through 59
Before starting, mark the upper left hand corner of your page with an "R" and the upper right hand corner with an "L". This will help you keep oriented to the resident's R and L.

Example:

R L

Avoid touching the resident's hands, legs, etc. and pointing to the resident's hands, ears, eyes, etc. while administering the test. Keep good eye contact with the resident to avoid your looking at the parts of the body you are asking the resident to identify.

If the resident is sitting with his/her legs crossed ask him/her to uncross his/her legs.

If a limb is missing ask the resident to point to the nearest joint - ie. if missing a leg point to the appropriate hip. If the resident is paralyzed ask him to use the good hand to point to the appropriate limb.

It is not unusual to have a resident mix up the eye (Question 50) ear (Question 51) instructions. If he/she does and then gets the next one correct (Question 52) go back and repeat the ear (Question 51). This test works best if good eye contact is maintained throughout. Give Questions 49 through 52 and if the resident scores incorrectly on all items, score the rest incorrect and go on to the next section.

If the resident scores correct on question 59, but has missed 53 and/or 54 go back and give these questions again.

(7) Questions 60 through 66. To answer items 60 through 66 two open-ended questions have been devised to obtain the information you will code. To obtain information through the use of open-ended questions:

a) Keep a pad of paper near at hand. Put the number of the question at the top of the page. Often there is so much verbatim material that there is no room on the schedule for complete recording. The paper, if used, can be inserted later in the questionnaire to maintain the completeness of the data.

b) Your level of rapport at this time is extremely important. You must manage to behave in such a fashion that the resident views you with confidence and trust. Your role must be that of a recorder only. Do not introject

your thoughts. Do not change the wording of the question.

c) Record the answers verbatim. If the resident talks too fast ask him to slow down. He/she will if he/she perceives that you are truly interested in what he/she has to say. It is often helpful to say it back as you write it down. This serves a twofold purpose in that it helps to focus the resident on the answer and gives the recorder a chance to correct mistakes in recording. Stay with the resident, i.e., keep smiling, keep eye contact, keep projecting interest, trust, and confidentiality. Keep the resident comfortable.

d) Be alert to vague answers. Work for a clear answer. Code your probes as X. The answers will reflect what you used as a probe. Example: ...like about this place?" "I like my room." X (What about your room?) "My bed is hard and I love my new drapes." X (What else?) "Nothing, I guess." X (That's all?) "Yes. No that's not all. I like the way they arrange our mealtimes too." X (What else?) "I don't know." X (Well now, stop and think about this place. Think about it and take your time.) "I know, I like the way it's arranged. I can get to the dining room all by myself without bothering the girl." X (What else?) "Nothing else. That's really all."

If you get a "I don't know" answer at first, try the probes given above in parentheses to warm the resident up. Keep going till you feel there really is nothing more for the resident to answer.

"Don't know" can be coded D.K. Example: "D.K." X (Well, stop and think.) "I told you, I D.K."

e) If the resident turns the first question around and answers in terms of what he/she dislikes, circle the question and note it belongs to the second half. When the resident finishes to go the next question and refocus the resident by giving him/her the statements just made. This can be prefaced by saying "You mentioned before etc...etc..."

Either code 60 through 66 at the end of the interview after you have left the resident's side or at the end of the day when you review the data scheules.

(8) Questions 67 through 70

If the first answer is a D.K. or vague use one probe such as asking him/her to stop and think. Note probe with an X and record verbatim. Code into one of the three categories.

(9) Question 71. After the initial answer of satisfied/dissatisfied ask the probe written on the data schedule and attempt to focus the resident's answer.

If the answer is a D.K., try one of the probes described above. Note the probe as X and record the answer verbatim. Code into the categories listed at the end of the interview or when the data collection schedule is reviewed at the end of the day.

(10) Questions 72-73. Use one probe for a D.K. - Record answer(s) verbatim. For question 73 you may have to repeat the listed categories more than one time to focus the resident's answer.

(11) Questions 74 through 78. Answer these immediately after leaving the resident.

(12) Question 79 through 91. In question 82 appropriate means that if the resident uses make-up the staff has assisted her so that she has not become a caricature or looks clown-like.

For question 88 look for dry lips and tongue. A resident who has a dry mouth will have trouble answering the questions!

He/she will attempt to maintain the moisture on his/her lips to no effect.

For question 91 - circle yes only if the need is obvious and/or if the resident communicates such a need.

(13) Questions 92 through 94. For question 92 you will have to look closely at the resident while you are interviewing. If the resident smiles it is easier to ascertain the dentures.

SECTION II PATIENT REVIEW

MEDICAL RECORD INFORMATION

General Directions (Items 96-122)

(1) Do not complete this section until after you have interviewed the resident.

(2) Ask the charge nurse if it is convenient for you to check the charts at this time. If it is not, do some other part of the survey and return at a more favorable time.

(3) Remember to replace charts, Kardex, and other records back where you found them.

(4) This approach insures their cooperation during future surveys.

(5) Do not expect the staff to act as your handmaidens. They have residents for whom they must care.

(1) Questions 96 through 100. Look for the standard Long-Term Care transfer form, the note, the admission physical, or the Social Service admitting note, on the current chart, but they may have been pulled and filed if the resident has been in the institution for a full year or longer. You ask for them.

(2) Questions 101 through 115. Review the current recopied orders for the necessary information. Note if the orders were countersigned by the physician.

(3) Questions 116 through 122. Review the Kardex as well as the chart for this information. For question 119 note if the short term rehabilitation/restorative goal is related to the long term goal. Example:

Short-term goal: Hold milk cup with both hands

Long-term goal: Feed self

Answer question 122 on the basis of the data you obtained during your initial tour.

SECTION III. PATIENT REVIEW:

STAFF INTERVIEW

General Directions (Items 123-194)

(1) Attempt to make your respondent as comfortable as possible.

(2) Reassure him/her of the confidentiality of the answers.

(3) Use the interview skills outlined in the resident interview as needed in this section.

(4) Be careful not to make any judgmental comments about the resident and/or the ability of the respondent as a care giving person.

(5) Do not allow your assessment of the resident to color your interview.

(6) Practice this section until the pattern of the skip questions become automatic.

(7) If your questionnaire does not have the appropriate skip notations printed in, write them in ahead of time until you are familiar with the pattern.

The pattern should be:

Question 123

if 1 ask 124

Question 124

if 1 ask 125 and if any answer go onto 131
if 2 ask 126 and go onto 131

Question 123

if 2 ask 127

Question 127

if 3 ask 128 and go onto 131
if 4 ask 129

Question 129

if 3 ask 130 and go onto 131
if 4 go onto 131

Question 132

if any answer go onto 136

Question 134

if 8 go onto 136
if 7 ask 135 and go onto 136

Question 131

if 1 ask 132 and go onto 136
if 2 ask 133 and go onto 136
if 3 ask 134

Note: Read Question 135 as, "Does he help the person who does these things for him, or not? Yes or no?"

Question 137

if 1 ask 138 and go onto 141
if 2 ask 139 and go onto 141
if 3 ask 140 and go onto 141

Question 141 (Be sure to put in resident's name)

if 1 ask 141 and go onto 144
if 2 ask 143 and go onto 144

Question 144

if 1 ask 145 and go onto 147
if 2 ask 146 and go onto 147

Question 147

if 1 go onto 150
if 2 or 3 go to 148

Question 148

if 1 or 2 ask 149 and go onto 150

Question 151

if the answer is no - code 3
if the answer is yes follow the directions on the data schedule

Question 152

if 1 ask 153 and go onto 155
if 2 ask 154 and go onto 155

Question 155

if 1 go onto 156

Question 155A

if yes ask B and go onto 156

Question 156

if 1 go onto 157
if no ask A

Question 156A

if no go onto 157
if yes ask B and go onto 157

Questions 157 and 158

Note: Remember to ask the question two times, once for bladder control and once for bowel control. Record "yes" answers in the margin. If there is a yes for one and not for the other record this in the margin and follow through on the function that lacks control.

Questions 159 and 160

Code as indicated on the data collection schedule.

Questions161

if 2 ask 162 and go onto 163
if 1 go onto 163

Question 172 and 173

if the answer is "yes" ask the indicated question and record the answer verbatim.

Question 181 through 184

Repeat the "Does he ever..." for items 182, 183 and 184
If a "yes" answer is obtained follow the directions given on data collection sheet.

(8) When editing code the question you have skipped as (9).

(9) The skip pattern questions act as a filter to obtain more specific answers. As the goal is to get the most specific answers possible when the respondent answers with a "sometimes" use probes.

Example: "Well, take a minute and think about it. Is there an LPN or RN on the floor, or not?"

Example: "Well, how is it most of the time?"

Record your probe as an X.

(10) When time and space allow make a few verbatim notes to help in your final editing at the end of the day

(11) Try and keep in mind that the goal of the instrument is to develop a resident profile not to gather data for a resident care plan or to assess the respondent's knowledge of his/her residents.

The procedure and specifications outlined above for the Patient Review items were the ones developed and used during the surveyor training and pilot test phase of the project.

III. SCORING MANUAL

CONTENTS

Section		Page
Scoring Procedures and Specifications		III-3
Item Scores	III-3	
Criterion Scale Scores	III-5	
Summary Measures	III-8	
Matching Scores and Satisfaction Indices	III-12	
Generation of Profile Reports	III-16	
Facility Criterion Scale Definitions		III-24
Resident Criterion Scale Definitions		III-30
Computation of Matching Scores		III-36

SCORING PROCEDURES AND SPECIFICATIONS

Item Scores

Facility Survey Items

The data collection design for the facility review instrument specifies that 3 of the 4 sections of the instrument be administered more than once. This will result in more than one score for the facility for each item in these section. Prior to calculating the quality scores, a single item score for each item must be derived. The procedures to be followed in deriving a single item score for each item are described below.

1. Section II: Surveyor's Observations

This section is administered independently by each member of the survey team. This data collection design results in two responses for a facility on each item. The single item score that should be assigned to a facility for these twice sampled items is the sum of the two scores. Looking at pilot test item number 140, if one surveyor rated a facility 3, and the second surveyor assigned a score of 4, the single score that should be assigned to this facility for item number 141 is 7. The summing of the two scores incorporates the judgment of each surveyor in the scores assigned to the facility for each of these items. If, for any reason, one surveyor does not provide a response to an item in this section, the score that should be assigned to the facility is twice the score assigned by the surveyor who does respond.

2. Section III: Staff Interview

This section is administered to two staff members of a facility, again resulting in two scores for a facility for each item. These two scores are

summed and the sum is the score assigned to the facility for each of these items.

3. Section IV: Staff Survey

This section is administered to four staff members in each facility. This survey is used to measure characteristics of a facility and thus a single response (item score) is required on each item. To convert these multiple responses into a single score, the mean value over the four responses in a facility for each item is used. The possible mean values range between 1 and 2 and this range is divided into four equal intervals. The interval into which the mean value falls determines the score for the facility on the item. The form of the transformation is as follows:

$$Y_i = 1 \text{ if } 1.00 \leq \bar{x}_i < 1.25$$

$$Y_i = 2 \text{ if } 1.25 \leq \bar{x}_i < 1.50$$

$$Y_i = 3 \text{ if } 1.50 \leq \bar{x}_i < 1.75$$

$$Y_i = 4 \text{ if } 1.75 \leq \bar{x}_i \leq 2.00$$

where $\bar{x}_i$ is the mean of the four item scores for item "i"

and y_i is the transformed item score for a facility on item "i"

For example, if the four staff responses to pilot test item number 435 were 1, 1, 2, and 1, the mean score would be $\frac{5}{4} = 1.25$, and the facility would be assigned a score of 2 for this item. If for some reason there were only three staff responses to the item, the mean would be calculated over the three respondents and the score transformed to an ordinal value between 1 and 4 under the same transformation specified above. In principle there is no reason why more than four Staff Surveys cannot be used.

Corrections for Direction of Scoring

The measures resulting from the use of these instruments relate to level of resident need and facility quality. For this reason, all the resident items should be scored so that the ordinal values increase with need. Similarly items measuring facility characteristics should be scored with ordinal values increasing with quality. Those items whose structure does not presently account for this will need to be transformed in such a way that a high score relates to high need and high quality for residents and facilities respectively. These item transformations are documented in the Facility and Resident Criterion Scale Definitions included in this manual under the column heading "Recode."

Criterion Scale Scores

The criterion scores are weighted sums of standardized item scores. The item scores are standardized to prevent spurious weighting of items based on the number of response categories. The standardization of the item scores involves normalizing the scores and then transforming the normalized scores so that they have a mean of 15 and a standard deviation of 5. The standardization of the item scores is built into the formula for computing criterion scores. The formula for computing the j^{th} criterion score C_j is:

$$C_j = \frac{\sum_i W_i \left[5\left(\frac{I_i - \bar{I}_i}{S_i} \right) + 15 \right]}{30 \sum_i W_i}$$

where I_i = raw score on the i^{th} item in the criterion scale.

$\bar{I}_i$ = estimate of the population mean on the i^{th} item in the scale.

S_i = estimate of the population standard deviation of the i^{th} item in the scale.

W_i = weight assigned to the i^{th} item in the scale.

The expression in square brackets $\left[5\left(\frac{I_i - \bar{I}}{S_i}\right) + 15\right]$ is the formula used to standardize the items. Estimates of population means ($\bar{I}_i$) and standard deviations (s_i) calculated from our pilot test data collected on 20 Illinois facilities and 280 of their residents are included in Appendices II-B (facility) and II-D (resident). These estimates, however, should be applied to other data only with great caution. Using this standardization, 99.73% of the standardized item scores will fall in the range 0.00 - 30.00 if the items are normally distributed. The formula used for calculating the criterion scores is a ratio of the actual weighted sum of standardized item scores to the maximum possible sum of weighted item scores where the maximum item score is taken as 30.00. Thus, the values of the criterion scores C_j can in principle range from 0 to 1.* This facilitates comparison of different criterion scores within a facility and also precludes spurious weighting of criteria in the calculation of subobjective scores.

The composition of the criteria in the quality construct is documented in the sections of this manual titled Facility and Resident Criterion Scale Definitions. The item numbers used correspond to the survey instruments presented in the Draft Surveyor's Manual. Also included in these charts are the parameters necessary for calculating criterion scores.

Looking at resident criterion No. 12, Nighttime Behavior, the following is a numerical example of the calculations involved in determining the score for this criterion. The items comprising this scale are pilot test nos. 176, 177, 178. None of these items require transformation to correct for direction

---

* In fact, scores approaching 0 and 1.00 can only occur if item-level variables are continuous rather than ordinal variables with only a few response categories. See Chapter 6(c) for another reference to this point.

of scoring. Thus the calculation is:

$$C_{12} = \frac{W_{176}\left[5\left(\frac{I_{176} - \bar{T}_{176}}{S_{176}}\right)+15\right] + W_{177}\left[5\left(\frac{I_{177} - \bar{T}_{177}}{S_{177}}\right)+15\right] + W_{178}\left[5\left(\frac{I_{178} - \bar{T}_{178}}{S_{178}}\right)+15\right]}{30\left(W_{176} + W_{177} + W_{178}\right)}$$

For a hypothetical resident who was scored 2, 1, 2 on items 176, 177 and 178 respectively, the numerical calcualtion would be:

$$C_{12} = \frac{.40\left[5\left(\frac{2-1.247}{0.516}\right)+15\right] + .54\left[5\left(\frac{1-1.086}{1.306}\right)+15\right] + .41\left[5\left(\frac{2-1.189}{0.452}\right)+15\right]}{30\left(.40 + .54 + .41\right)}$$

$$= \frac{.40 \times 22.296 + .54 \times 13.594 + .41 \times 23.971}{40.5}$$

$$= \frac{8.918 + 7.340 + 9.828}{40.5}$$

$$= 0.644$$

Thus this resident would have relatively high need related to restlessness and activity at night. Note that this score is based on the following norms:

Item	Mean Score	Standard Deviation
176	1.247	.516
177	1.086	.306
178	1.189	.452

These means and standards were calculated from our pilot test data on 280 residents of Illinois facilities.

If, however, this resident did not receive a score for one of the items in the scale, say item 177, the criterion score for this scale would be calculated in an identical fashion, omitting item 177, its norms and weights, from the calculation. The calculation would be:

$$C = \frac{.40\left[5\left(\frac{2-1.247}{0.516}\right)+15\right] + .41\left[5\left(\frac{2-1.189}{0.452}\right)+15\right]}{30(.40 + .41)}$$

$$= \frac{.40 \times 22.296 + .41 \times 23.971}{24.3}$$

$$= .771$$

In this fashion a criterion score can be calculated for each criterion regardless of the number of items without valid responses. The criterion score would be based upon those items in the scale for which valid responses were recorded. The only instance that a criterion score cannot be calculated is if there are no valid responses to any of the items in a scale.

Summary Measures

The summary measures are computed in a similar manner to the criterion scores in that they are the ratio of actual score on the measure to the maximum possible score. Since all of these summary measures are based upon lower level measures whose maximum possible score is 1, the maximum possible score on the measure in question is merely the sum of the weights assigned to the lower level measures which comprise it.

The computational formulae are:

$$S_k = \frac{\Sigma_j W_j C_j}{\Sigma_j W_j}$$

$$O_h = \frac{\Sigma_k S_k}{N_h}$$

where S_k = score on the k^{th} subobjective

C_j = score on the j^{th} criterion

W_j = weight of j^{th} criterion in the subobjective

O_h = score on the h^{th} major objective

N_h = number of subobjectives in major objective h

and the index score is the simple average of the major objective scores. Using these formulae, all summary measures will vary between 0 and 1.00. Figures 1 and 2 show the structure of the summary measures for the facility construct and resident construct respectively. These figures also present the weights necessary for calculating subobjective scores.

Looking at the facility construct, the following are numerical examples for the calculation of the summary measures.

For facility subobjective 3, Involvement in Activities, the computational formula for deriving this subobjective score is:

$$S_3 = \frac{W_{25}C_{25} + W_{26}C_{26} + W_{27}C_{27} + W_{28}C_{28}}{W_{25} + W_{26} + W_{27} + W_{28}}$$

For a facility which received scores of 0.584, 0.666, 0.751, and 0.628 on criteria 25, 26, 27, and 28 respectively, the subobjective score would be

$$S_3 = \frac{(0.77 \times 0.584) + (0.82 \times 0.666) + (0.38 \times 0.751) + (0.65 \times 0.628)}{0.77 + 0.82 + 0.38 + 0.65}$$

$$= \frac{.45 + .55 + .29 + .41}{2.62}$$

$$= 0.65$$

Thus the score on subobjective 3 for a facility receiving these criterion scores would be 0.65.

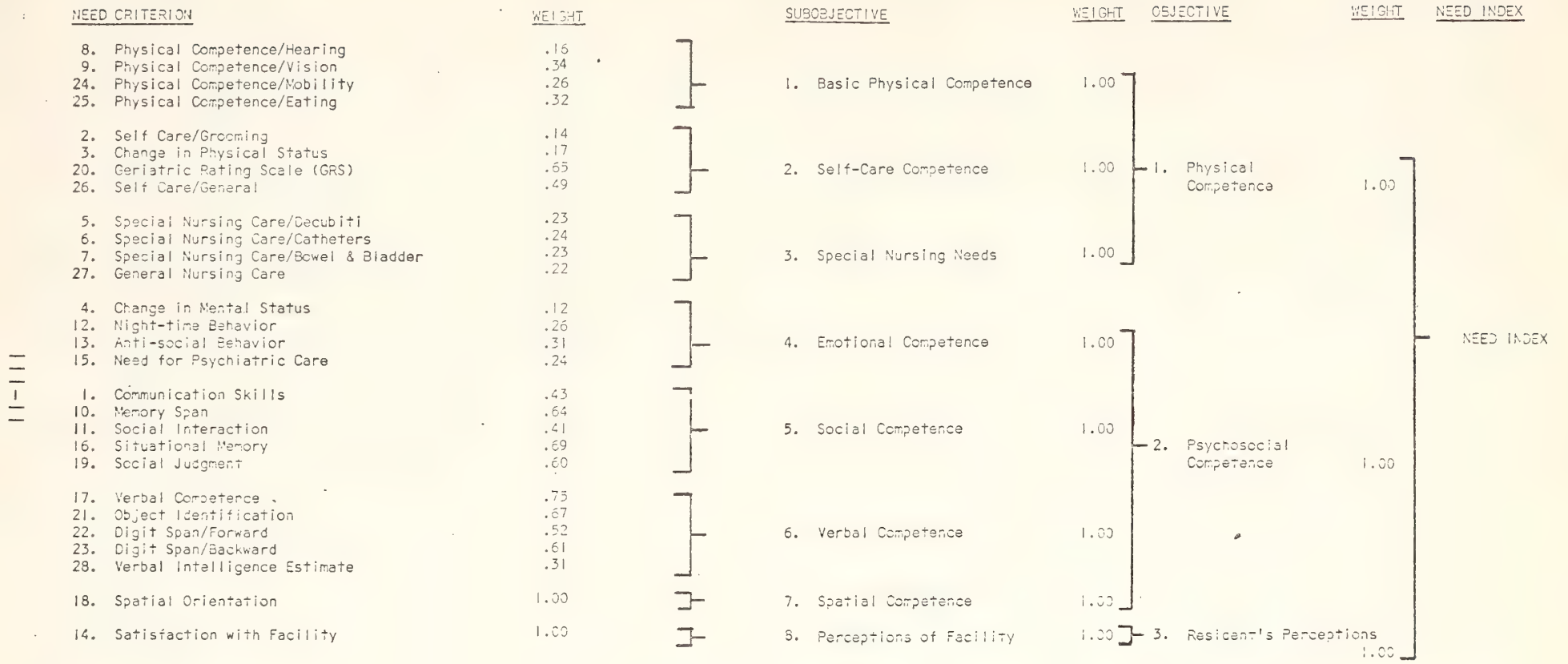
FIGURE .

STRUCTURE OF FACILITY QUALITY MEASURES AND WEIGHTS

QUALITY CRITERION	WEIGHT	SUBOBJECTIVE	WEIGHT	OBJECTIVE	WEIGHT	QUALITY INDEX
4. Personalization of Environment	.50					
2. View from Windows	.50					
9. Orderliness/Personal & Private Spaces	.50	1. Enriched Personalized Environment	1.00			
5. Building Complexity	.50					
29. Staff Tolerance/Somatic	.44					
30. Staff Tolerance/Behavior	.35					
31. Staff Recognition	.30	2. Staff-Resident Relationships	1.00	1. Psychosocial Environment	1.00	
32. Residents' Openness with Staff	.50					
34. Group Spirit	.40					
25. Activity Level	.76					
26. Structured Activities	.82					
27. Informal Activities	.38	3. Involvement in Activities	1.00			
28. Resident Interaction	.65					
1. Illumination	.52					
3. Condition of Plant	.61					
6. Unpleasant Odors	.81					
7. Cleanliness	.92	4. Physical Plant	1.00			
8. Maintenance Practices	.83					
24. General Attractiveness	.82					
11. Food Service/Cleanliness	.52			2. Physical Plant & Personal Services	1.00	QUALITY INDEX
12. Food Service/Attractiveness	.55					
14. Residents' Grooming & Personal Care	.35	5. Personal Services	1.00			
15. Nursing Service Staffing Levels	.50					
10. Food Service Personnel	.40					
19. Pharmacy Facilities	.30					
35. Inservice/Use of Professional Resources	.81	6. Administrative & Support	1.00			
36. Inservice/For all Staff	.55					
39. Administrative Resources	.71					
40. Patient Records	.42					
17. Restorative Nursing Practice	.86					
22. Documentation of Restorative Care	.48					
23. Use of Programmatic Resources	.79	7. Rehabilitative & Restorative Care	1.00	3. Professional Services	1.00	
33. Encouragement of Patient Activity	.90					
38. Community Resources	.76					
13. Medical & Professional Support Staffing	.50					
16. Nursing Supervision	.30					
18. Nursing Policies	.83					
20. Medications/Practices	.51	8. Health Care Services	1.00			
21. Medications/Safety	.30					
37. Professionalism of Staff	.40					

FIGURE 2

STRUCTURE OF RESIDENT NEED MEASURES AND WEIGHTS


NEED CRITERION
WEIGHT
8. Physical Competence/Hearing .16
9. Physical Competence/Vision .34
24. Physical Competence/Mobility .26
25. Physical Competence/Eating .32
2. Self Care/Grooming .14
3. Change in Physical Status .17
20. Geriatric Rating Scale (GRS) .65
26. Self Care/General .49
5. Special Nursing Care/Decubiti .23
6. Special Nursing Care/Catheters .24
7. Special Nursing Care/Bowel & Bladder .23
27. General Nursing Care .22
4. Change in Mental Status .12
12. Night-time Behavior .26
13. Anti-social Behavior .31
15. Need for Psychiatric Care .24
1. Communication Skills .43
10. Memory Span .64
11. Social Interaction .41
16. Situational Memory .69
19. Social Judgment .60
17. Verbal Competence .75
21. Object Identification .67
22. Digit Span/Forward .52
23. Digit Span/Backward .61
28. Verbal Intelligence Estimate .31
18. Spatial Orientation 1.00
14. Satisfaction with Facility 1.00
SUBOBJECTIVE
WEIGHT
OBJECTIVE
WEIGHT
NEED INDEX
1. Basic Physical Competence 1.00
2. Self-Care Competence 1.00
3. Special Nursing Needs 1.00
1. Physical Competence 1.00
4. Emotional Competence 1.00
5. Social Competence 1.00
6. Verbal Competence 1.00
2. Psychosocial Competence 1.00
7. Spatial Competence 1.00
8. Perceptions of Facility 1.00
3. Resident's Perceptions 1.00
NEED INDEX

If this facility received scores of 0.59 and 0.56 on subobjectives 1 and 2 respectively, its score on major objective 1, Psycho-Social Environment would be:

$$O_1 = \frac{0.59 + 0.56 + 0.65}{3}$$

$$= 0.60$$

Further if the facility received scores of 0.57 and 0.51 on major objectives 2 and 3 respectively its index score would be

$$I = \frac{0.60 + 0.57 + 0.51}{3} = 0.56$$

Matching Scores and Satisfaction Indices

Matching scores are derived by comparing each resident criterion with a set of facility criteria judged most relevant to meeting this resident need. Each of these facility criteria is weighted in relation to its importance in meeting this need. The section of this manual titled "Computation of Matching Scores" shows, for each resident criterion, the facility criteria selected selected as relating to this resident need and the weight attached to each facility criterion.

A matching score is computed for each resident criterion using this formula:

$$M_j = \frac{\frac{\sum_m W_m C_m}{\sum_m W_m}}{C_j} = \frac{\sum_m W_m C_m}{C_j \sum_m W_m}$$

where:

M_j = matching score for the j-th resident criterion

C_m = score of the facility on the m-th facility criterion

W_m = weight of m-th facility criterion

C_j = resident's score on the j-th resident criterion

Both the numerator and denominator of this expression vary between 0.00 and 1.00, since the C_j and C_m are constructed to vary between 0.00 and 1.00 (see section on criteria definitions) and since the expression for the numerator takes each facility criterion weight as a proportion of the total of the weights of the facility criteria used to match the particular resident criteria. Thus, the matching score is a measure of the ratio of facility quality to patient need.

To illustrate these computations suppose we were reviewing an individual who received a score of 0.65 on resident criterion 25, Physical Competence/Eating, and that this person is a resident of a home receiving the following scores on the facility criteria matched with Physical Competence/Eating:

Facility criterion	Score
10	0.397
15	0.192
17	0.539
29	0.507
36	0.536

The matching score for this resident would be:

$$M_{25} = \frac{\left(\frac{W_{10}C_{10} + W_{15}C_{15} + W_{17}C_{17} + W_{29}C_{29} + W_{36}C_{36}}{W_{10} + W_{15} + W_{17} + W_{29} + W_{36}}\right)}{C_{25}}$$

$$= \frac{\left(\frac{(1 \times 0.397) + (2 \times 0.192) + (3 \times 0.539) + (3 \times 0.507) + (2 \times 0.536)}{1 + 2 + 3 + 3 + 2}\right)}{0.65}$$

$$= \frac{0.397 + 0.384 + 1.617 + 1.521 + 1.072}{11 \times 0.65}$$

$$= \frac{4.991}{7.15}$$

$$= 0.698$$

An individual resident's matching score on a given criterion is interpreted by comparing it to a corresponding "cutoff score". These cutoff points are distribution-dependent parameters to be computed from estimates of the population distributions of the matching scores. The cutoff score for a resident criterion is defined as the mean matching score, minus one standard deviation. A resident whose matching score on a criterion is less than the cutoff point is said not to have the need measured by this criterion met by the facility. A resident whose matching score is equal to or greater than the cutoff point is said to have that specific need met at the level established by the distribution-dependent selection of the cutoff point.

For our example, the matching score for criterion 25 for this resident in his facility is 0.698. Comparing this with the cutoff value for criterion 25 of 0.765, we would determine that this facility is not able to meet this residents needs with respect to the eating measure, at the level specified by the cutoff point. This resident's matching score would thus be flagged in the profile report (discussed in the following section) with an asterisk to indicate that the facility in which he resides has resources of insufficient quality to satisfy this need.

Matching scores vary from 0.00 to a theoretical upper limit of infinity if a case should arise where the resident's need score approaches zero in the presence of non-zero facility qualtiy scores. It should be emphasized that a matching score greater than 1.00 does not have any substantive interpretation. In particular it does not mean the resident is "over placed" or getting more care than he needs.

For a number of resident criteria, specifically those measuring psycho-

logical and psychiatric needs, two matching scores were constructed. One is based on facility characteristics judged to best meet the needs of residents with high criterion scores (indicating low self-care ability or "high need"). The other matching score is based on facility characteristics judged to best meet the needs of residents with low criterion scores (indicating high self-care ability). In deriving matching scores for patients functioning at a high level new criterion scores are computed as 1.00 minus the original criterion score (measuring the degree of disability). This computation again takes advantage of the fact that criterion scales are standardized to vary between 0.00 and 1.00.

Consider, as an example, criterion 19, Social Judgment for which, in its original form, a high score indicates a low level of social judgment. The matching score corresponding to criterion 19, scored in the original manner, estimates the appropriateness of the facility attributes for a resident with impaired social judgment. Using the derived criterion score of 1 minus the original criterion score and the alternate list of facility criterion matches, the matching score estimates the appropriateness of the facility attributes for a resident with unimparied social judgment. The rationale for this procedure is discussed in Chapter 6 (d) of Volume I.

From the matching scores for all the residents reviewed in the course of a quality evaluation survey, a set of satisfaction indices are computed for the facility. For each need criterion, the satisfaction index is the proportion of the residents sampled whose matching scores on the resident criterion in question are equal to or greater than the cutoff score. Since cutoff scores have been established by estimating the distributions of matching scores in the whole population of residents of long-term care fa-

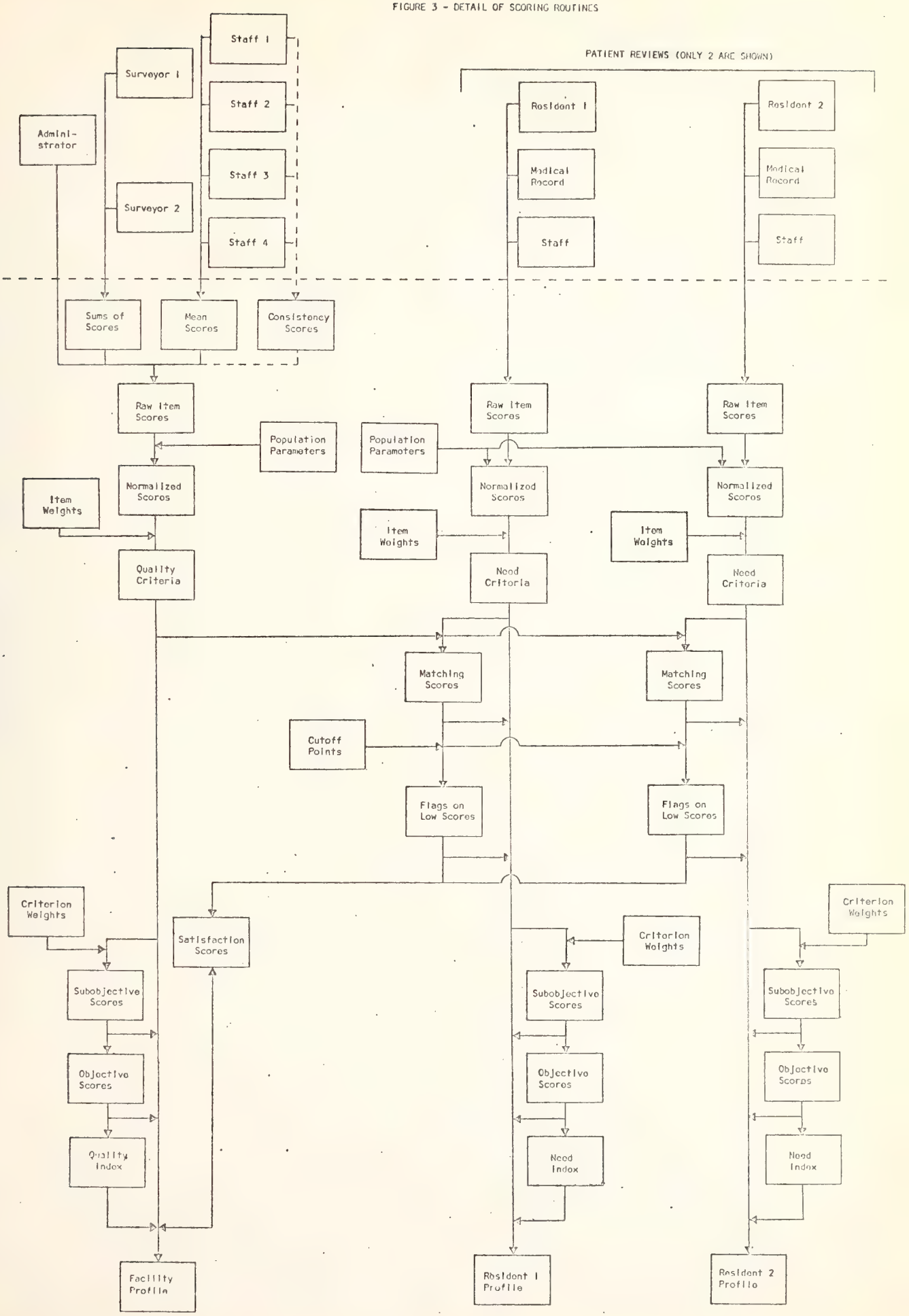
cilities, these satisfaction indices vary across facilities.

It should be emphasized that each satisfaction score is a sample estimate of the proportion of all the residents in the facility whose particular need (as represented by the need criterion scale) is met to a particular extent by the facility's attributes. To the extent that the samples of residents reviewed and included in the calculation of satisfaction scores is small relative to the total census, these satisfaction scores are subject to considerable sampling variation. Therefore, in all but extremely small facilities, the data scored should include additional Patient Reviews beyond the four done as an integral part of the Facility Survey. It should be noted, however, that the samples of residents are drawn from populations (total census of a facility) that are, by statistical standards, quite small. Thus formulas for estimates of sampling variation must take into account the usual corrections for finite population size.

Generation of Profile Reports

The preceding sections of this chapter describe in detail the individual steps required to process the data from a survey and generate scores at the various hierarchical levels of the quality construct. An overview of the interaction between the scoring steps is diagrammed in a flowchart format in Figure 3. For the sake of clarity only two patient reviews are shown in the flowchart whereas in principle any number can be included. From each component of the survey data (boxes above the dotted line), item scores are generated using where necessary the various item transformation routines described in the section of this chapter titled "Item Scores". Using these transformed and raw item scores as input, along with population parameters necessary for the calculation, criterion scores are computed using the formula

FIGURE 3 - DETAIL OF SCORING ROUTINES



presented in the section titled "Criterion Scale Scores". The facility criterion scores are entered into the computation of subobjective, major objective and index scores as described in the section titled "Summary Measures" and represented diagrammatically in the left branch of the flow-chart. All of the scores are presented in a facility profile report (lower left-hand box). Criterion scores on each resident similarly generate summary measures on that patient and these are entered into the resident profile. In addition, resident need criterion scores and facility quality criterion scores are input into a routine to calculate matching scores as described in the section of this chapter titled "Matching Scores and Satisfaction Indices". These matching scores are compared with the cutoff value for the need criterion in question to determine whether the resident's need is being satisfied by the facility. When the matching score is less than the cutoff value, the score is "flagged" to indicate that this need is not being met. This comparison routine will generate, for each need criterion, the proportion of residents sampled in the facility whose matching score is greater than the cutoff value. These proportions are referred to as the satisfaction scores and are entered into the facility profile. The matching scores, with the flags (asterisks) when they occur, are entered into the resident profile.

Possible formats for the output of the scoring procedure, the profile reports are presented in Figures 4 and 5. Figure 4, which appears on two pages, is the Facility Profile Report. This figure is identical to Exhibit 3.3 in the Narrative and Analysis Segment of our report. The first page gives the criterion scale scores and the hierarchy of summary measures, as well as identifying information about the facility. The second page presents the satisfaction scores for each resident need criterion. It also lists the

FIGURE 4
LAYOUT OF FACILITY PROFILE REPORT

FACILITY PROFILE REPORT I: QUALITY SCORES

FACILITY ID:

DATE OF SURVEY SURVEYOR IDs: AND LOCATION. OWNERSHIP: BED SIZE/SKILLED: ; ICF: ; SHELTERED:

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment 2. View from Windows 9. Orderliness/Personal & Private Spaces 5. Building Complexity		1. Enriched Personalized Environment				
29. Staff Tolerance/Somatic 30. Staff Tolerance/Behavior 31. Staff Recognition 32. Residents' Openness with Staff 34. Group Spirit		2. Staff-Resident Relationships		1. Psychosocial Environment		
25. Activity Level 26. Structured Activities 27. Informal Activities 28. Resident Interaction		3. Involvement in Activities				
1. Illumination 3. Condition of Plant 6. Unpleasant Odors 7. Cleanliness 8. Maintenance Practices 24. General Attractiveness		4. Physical Plant		2. Physical Plant & Personal Services		
11. Food Service/Cleanliness 12. Food Service/Attractiveness 14. Residents' Grooming & Personal Care 15. Nursing Service Staffing Levels		5. Personal Services				
10. Food Service Personnel 19. Pharmacy Facilities 35. Inservice/Use of Professional Resources 36. Inservice/For all Staff 39. Administrative Resources 40. Patient Records		6. Administrative & Support				
17. Restorative Nursing Practice 22. Documentation of Restorative Care 23. Use of Programmatic Resources 33. Encouragement of Patient Activity 38. Community Resources		7. Rehabilitative & Restorative Care		3. Professional Services		
13. Medical & Professional Support Staffing 16. Nursing Supervision 18. Nursing Policies 20. Medications/Practices 21. Medications/Safety 37. Professionalism of Staff		8. Health Care Services				

FIGURE 4 (continued)

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID:

PATIENT REVIEWS INCLUDED

RESIDENT ID DATE

RESIDENT NEED CRITERION	SATISFACTION SCORES	
	HIGH NEED	LOW NEED
8. Physical Competence/Hearing		
9. Physical Competence/Vision		
24. Physical Competence/Mobility		
25. Physical Competence/Eating		
2. Self Care/Grooming		
3. Change in Physical Status		
20. Geriatric Rating Scale (GRS)		
26. Self Care/General		
5. Special Nursing Care/Decubiti		
6. Special Nursing Care/Catheters		
7. Special Nursing Care/Bowel & Bladder		
27. General Nursing Care		
4. Change in Mental Status		
12. Night-time Behavior		
13. Anti-social Behavior		
15. Need for Psychiatric Care		
1. Communication Skills		
10. Memory Span		
11. Social Interaction		
16. Situational Memory		
19. Social Judgment		
17. Verbal Competence		
21. Object Identification		
22. Digit Span/Forward		
23. Digit Span/Backward		
28. Verbal Intelligence Estimate		
18. Spatial Orientation		
14. Satisfaction with Facility		

NOTE

Scores are percentages based on residents, or approximately a per cent sample of the census.

FIGURE 5

LAYOUT OF RESIDENT PROFILE REPORT

RESIDENT PROFILE REPORT

FACILITY ID: RESIDENT ID:

REVIEW DATE: SURVEYOR ID:

SEX: RACE: DATE OF ADMISSION:

NEED CRITERION	SCORE	MATCHING SCORES HIGH NEED	MATCHING SCORES LOW NEED	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	NEED INDEX
8. Physical Competence/Hearing 9. Physical Competence/Vision 24. Physical Competence/Mobility 25. Physical Competence/Eating				1. Basic Physical Competence				
2. Self Care/Grooming 3. Change in Physical Status 20. Geriatric Rating Scale (GRS) 26. Self Care/General				2. Self-Care Competence		1. Physical Competence		
5. Special Nursing Care/Decubiti 6. Special Nursing Care/Catheters 7. Special Nursing Care/Bowel & Bladder 27. General Nursing Care				3. Special Nursing Needs				
4. Change in Mental Status 12. Night-time Behavior 13. Anti-social Behavior 15. Need for Psychiatric Care				4. Emotional Competence				
1. Communication Skills 10. Memory Span 11. Social Interaction 16. Situational Memory 19. Social Judgment				5. Social Competence		2. Psychosocial Competence		
17. Verbal Competence 21. Object Identification 22. Digit Span/Forward 23. Digit Span/Backward 28. Verbal Intelligence Estimate				6. Verbal Competence				
18. Spatial Orientation				7. Spatial Competence				
14. Satisfaction with Facility				8. Perceptions of Facility		3. Resident's Perceptions		

*Indicates that matching score falls below the distribution-dependent "cut-off point".

Matching scores based on Facility survey conducted

IDPH POINT COUNTS

1. Eating
2. Mobility
3. Behavior/Mental Condition
4. Physical Rehabilitation
5. Catheterization
6. Incontinence
7. Enemas, Colostomy Irrigations

TOTAL POINTS =

8. Diet
9. Medications
10. Injections
11. I.V. Fluids
12. Suctioning
13. Oxygen
14. Dressings and Appliances

residents reviewed in that facility and the dates of the reviews.

The Resident Profile Report is similar in structure to the first page of the Facility Profile, except that it includes the resident's matching scores adjacent to his need scores on the resident criterion scales, rather than on a separate page. This figure is identical to Exhibit 3.4 in our Narrative and Analysis. The Resident Profile also includes a report of the information used by the Illinois Departments of Public Health (IDPH) and Public Aid to place patients by level of care and to set Medicaid reimbursement rates.

The identification data provided at the top of both facility and resident profile reports can be quite flexible. In many research applications (including our own presentation of data included in Volume I of this report), for example, this information would not include names of facilities or residents for reasons of confidentiality. The survey protocols could readily be modified to include on a face sheet whatever identification data was required. Questions on the face sheets would not be given item numbers, nor included in the calculation of scale scores. A computer program for scoring survey results and producing profile reports, when developed, should transcribe information directly from the face sheet to the report without entering it into the scoring routines.

FACILITY CRITERION SCALE DEFINITIONS

Criterion Scale	Item No.*	Recode	Mean ($\bar{I}$)	S.D. (s_I)	Weight (W_I)
01 : Illumination	137		5.35	0.81	0.40
	138		5.35	0.87	0.33
	139		5.55	0.76	0.61
	140		5.55	0.66	0.59
02 : View from Windows	133		4.20	0.95	0.77
	135		4.05	0.94	0.92
	136		3.85	1.04	0.73
03 : Condition of Plant	90		6.45	1.43	0.86
	105		6.50	1.40	0.82
	106		6.40	1.31	0.80
	107		6.40	1.39	0.82
	108		6.35	1.31	0.75
	113		6.40	1.47	1.00
	114		6.40	1.70	0.88
	115		6.50	1.50	0.88
	116		6.50	1.47	0.88
	121		6.25	1.41	0.71
	122		6.20	1.24	0.70
	123		5.90	1.59	0.77
	124		6.00	1.52	0.81
04 : Personalization of Environment	149		4.37	1.30	0.49
	150		3.15	1.31	0.49
	156		5.95	0.89	0.44
	279		4.65	2.11	0.74
	280		3.90	1.86	0.46
	281		4.65	2.01	0.71
	312		6.25	1.37	0.65
	357		5.10	1.21	0.51
	359		6.20	0.89	0.71
05 : Building Complexity	4	$600 - I_4$	442	81.6	0.60
	256	$10 - I_{256}$	5.45	2.61	0.11
	275		4.50	1.19	0.50
06 : Unpleasant odours	141		4.95	1.84	0.80
	142		5.05	1.87	0.82
	143		5.26	1.69	0.95
	144		5.47	1.61	0.87
	262		6.00	1.34	0.49
	264		5.65	1.23	0.80
	265		5.20	1.47	0.66
	332		5.30	2.32	0.71

* Item numbers refer to pilot test versions of Facility Survey instruments.

Criterion Scale	Item No.*	Recode	Mean ($\bar{I}$)	S.D. (s_I)	Weight (W_I)
07 : Cleanliness	101		6.30	1.56	0.86
	102		6.40	1.35	0.85
	103		6.20	1.67	0.82
	104		6.15	1.73	0.85
	109		6.25	1.55	0.90
	110		6.40	1.47	0.74
	111		6.20	1.67	0.85
	112		6.20	1.51	0.87
	117		4.10	1.17	0.96
	118		4.30	1.22	0.68
	119		4.15	1.18	0.71
	120		4.20	1.15	0.84
08 : Maintenance Practices	263		6.50	0.95	0.48
	264		5.65	1.23	0.75
	265		5.20	1.47	0.45
	340		3.15	1.04	0.28
09 : Orderliness/Personal & Private Spaces	126		4.50	1.57	0.52
	127		3.80	1.58	0.66
	128		3.70	1.75	0.82
	149		4.37	1.30	0.57
	150		3.15	1.31	0.51
10 : Dietary Personnel	159		6.00	1.30	0.15
	160		6.20	1.10	0.50
	161		5.90	1.37	0.49
	162		6.00	1.87	0.21
	247		3.85	1.87	0.19
11 : Cleanliness of Food Service	151		6.05	0.69	0.30
	152		5.75	1.12	0.37
	154		5.85	1.04	0.62
	158		6.10	1.37	0.35
12 : Attractiveness of Food Service	112		6.20	1.51	0.70
	120		4.20	1.15	0.79
	128		3.70	1.75	0.70
	155		5.30	1.45	0.35
13 : Medical & Professional Supporting Staff	45		1.56	0.62	0.81
	48		2.00	0.33	1.00
	49		1.79	0.53	0.51
	50		1.84	0.50	0.75
	54		2.37	1.16	0.37
	55		1.74	0.73	0.47

* Item numbers refer to pilot test versions of Facility Survey instruments.

Criterion Scale	Item No.*	Recode	Mean ($\bar{I}$)	S.D. (s_I)	Weight (W_I)
14 : Residents' Grooming & Personal Care	307		4.30	1.38	0.73
	308		5.50	1.57	0.77
	309		5.40	1.82	0.77
	310		5.35	1.63	0.80
	311		4.00	1.26	0.75
15 : Nursing Service Staffing Levels	64	I_{64}/I_{04}	0.06	0.13	1.00
	66	I_{66}/I_{04}	0.03	0.01	1.00
	68	I_{68}/I_{04}	0.19	0.07	1.00
16 : Nursing Supervision	59		2.42	0.61	0.81
	60		2.53	0.61	0.80
	61		2.47	0.61	0.80
	62		2.42	0.69	0.75
	238		5.16	1.38	0.16
17 : Restorative Nursing Practice	212		1.50	1.70	0.65
	221		5.50	1.82	0.33
	254		4.90	1.94	0.49
	313		4.60	1.82	0.71
	314		4.50	1.91	0.78
	316		4.55	1.70	0.73
	317		4.55	1.88	0.83
	318		4.80	1.67	0.69
	321		4.90	1.65	0.81
	322		4.70	1.92	0.73
	323		5.25	1.62	0.75
	324		4.75	1.59	0.75
	325		4.70	1.78	0.44
	326		5.45	1.79	0.83
	327		4.80	1.70	0.81
	328		4.70	1.78	0.68
18 : Nursing Policies	237		6.37	0.83	0.62
	238		5.16	1.38	0.56
	239		6.21	0.71	0.55
	240		5.95	1.35	0.69
	241		5.21	1.36	0.62
19: Pharmacy Facilities	47		1.95	0.40	0.43
	52		2.61	0.98	0.43
	164		2.30	0.73	1.00
	165		2.30	0.73	1.00
20: Medications/Practices	169		6.40	1.39	0.53
	176		6.70	1.49	0.53
	177		6.30	1.49	0.51
	178		6.00	1.63	0.31

* Item numbers refer to pilot test versions of Facility Survey instruments.

Criterion Scale	Item No.* Recode	Mean ($\bar{I}$)	S.D. (s_I)	Weight (W_I)
21 : Medications/Safety	168	6.40	1.39	0.76
	169	6.40	1.39	0.60
	170	6.00	1.30	0.45
	171	5.80	1.58	0.44
	172	6.90	1.02	1.00
	173	6.95	1.03	0.61
	174	6.63	1.50	0.38
	175	6.84	1.21	0.90
22 : Documentation of Restorative Care	182	2.20	1.82	0.50
	184	1.80	2.33	0.63
	186	2.60	2.26	0.39
	189	2.10	1.77	0.64
	198	2.90	2.10	0.64
	199	1.50	1.57	0.73
	200	2.40	1.79	0.62
	201	1.40	1.73	0.46
23 : Use of Programmatic Resources	227	6.32	0.75	0.57
	277	5.80	1.28	0.47
	281	4.65	2.01	0.60
	283	5.75	1.33	0.70
	288	5.65	1.23	0.58
	314	4.50	1.91	0.56
24 : General Attractiv-ness	91	6.45	1.96	0.60
	92	5.65	2.11	0.80
	307	4.30	1.38	0.61
	311	4.00	1.26	0.75
	320	5.00	1.52	0.72
	332	5.30	2.32	0.84
25 : Activity Level	277	5.80	1.28	0.58
	278	4.55	1.39	0.48
	279	4.65	2.11	0.69
	282	5.45	1.32	0.65
	283	5.75	1.33	0.64
	306	3.95	1.47	0.57
26 : Structured Activi-ties	284	5.90	1.21	0.59
	285	6.30	0.92	0.85
	286	6.25	0.97	0.77
	287	7.70	2.10	0.76
27 : Informal Activities	290	4.75	2.05	0.29
	291	3.35	1.53	0.40
	337	3.35	1.79	0.20

* Item numbers refer to pilot test versions of Facility Survey instruments.

Criterion Scale	Item No.*	Recode	Mean ($\bar{I}$)	S.D. (s_I)	Weight (W_I)
28 : Resident Interaction	293		4.45	1.15	0.45
	294		4.60	1.27	0.60
	295		3.35	1.35	0.42
	297		4.15	1.31	0.41
	299		4.70	1.78	0.48
29 : Staff Tolerance/ Somatic	386		5.80	0.41	0.44
	387		5.45	0.60	0.12
	388		5.60	0.50	0.49
	391		5.25	0.79	0.34
30 : Staff Tolerance/ Behaviour	384		5.10	0.85	0.35
	385		5.45	0.76	0.59
	389		5.45	0.60	0.48
	390		4.95	0.76	0.25
	392		5.65	0.59	0.57
31 : Staff Recognition	363		5.44	0.98	0.14
	364		5.90	0.31	1.00
	365		5.90	0.31	1.00
32 : Resident's Openness with Staff	424	$5 - I_{424}$	3.50	0.95	0.50
	438		2.90	1.25	0.41
	450		2.70	0.98	0.57
33 : Encouragement of Resident Activity	289		4.50	1.73	0.15
	292		5.05	1.39	0.57
	323		5.25	1.62	0.58
	329		5.85	1.50	0.44
	331		7.20	1.82	0.73
	355		8.15	2.26	0.15
34 : Group Spirit	298		4.70	1.56	0.28
	432		2.30	1.17	0.16
	435	$5 - I_{435}$	3.45	0.89	0.37
	451		2.75	1.07	0.33
35 : Inservice Use of Professional Resources	251		4.75	1.71	0.74
	252		3.30	1.56	0.52
	253		3.75	1.52	0.53
	254		4.90	1.94	0.67
	255		3.85	1.63	0.55
36 : Inservice/For All Staff	242		5.05	1.70	0.82
	243		5.05	1.82	0.70
	244		4.70	1.34	0.72
	245		5.75	1.55	0.63
	246		5.60	1.50	0.69
	247		3.85	1.87	0.65
	248		3.65	1.81	0.61
	249		3.35	1.73	0.73
	250		3.30	1.72	0.72

* Item numbers refer to pilot test versions of Facility Survey instruments.

Criterion Scale	Item No.*	Recode	Mean ($\bar{I}$)	S.D. (s_I)	Weight (W_I)
37 : Professionalism of Staff	45		1.55	0.62	0.13
	80		3.44	0.65	0.20
	232		6.05	0.70	0.25
	233		5.37	1.64	0.50
	234		5.79	1.23	0.25
38 : Community Resources	227		6.32	0.75	0.60
	235		5.32	1.38	0.62
	236		5.53	1.39	0.60
	337		3.35	1.79	0.58
	350		5.60	0.68	0.41
39 : Administrative Resources	217		5.50	1.93	0.57
	231		5.68	1.34	0.47
	237		6.37	0.83	0.47
	240		5.95	1.35	0.65
	257		6.05	1.39	0.60
	258		4.05	1.60	0.17
40 : Patient Records	58		1.95	0.62	0.32
	194		3.90	1.37	0.19
	195		4.30	1.34	0.19
	196		2.32	1.53	0.42
	203		0.30	0.98	0.19
	204		0.50	1.27	0.43
	205		1.00	1.55	0.48
	211		4.30	1.34	0.19
	225		5.67	1.71	0.42
	226		5.58	1.30	0.28

* Item numbers refer to pilot test versions of Facility Survey instruments.

RESIDENT CRITERION SCALE DEFINITIONS

Criterion Scale	Item No.*	Recode	Mean ($\bar{I}$)	S.D. (s_I)	Weight (W_I)
01 : Communication Skills	35-41	Sum of items 35 to 41	9.37	2.91	0.77
	74		1.70	1.00	0.62
	151		1.39	0.66	0.51
	152/153	Scored as 1 if $^{I}152 = 1$ and $^{I}153 - 1$ Scored as 2 if $^{I}152 = 1$ and $^{I}153 = 2$ Scored as 3 if $^{I}152 = 2$	1.51	0.87	0.62
02 : Self Care/Grooming	79		1.41	0.80	0.27
	80		1.34	0.75	0.51
	81		1.34	0.74	0.48
	82		1.89	0.78	0.40
	83		1.57	0.91	0.60
	84		1.76	0.97	0.46
	86		1.27	0.69	0.32
	87		1.37	0.77	0.60
03 : Change in Physical Status	163		1.84	0.70	1.00
04 : Change in Mental Status	187		1.87	0.60	1.00
05 : Special Nursing Care Care/Decubiti	160		1.14	0.46	1.00
06 : Special Nursing Care/Catheters	90		1.12	0.47	0.69
	113		1.21	0.57	0.45
07 : Special Nursing Care/Bowel & Bladder	157		1.75	1.10	0.54
	158		1.55	0.95	0.54
08 : Physical Competence/ Hearing	76		1.54	1.11	0.39
	155		1.38	0.95	0.41
09 : Physical Competence/ Vision	75		1.96	1.06	1.00
10 : Memory Span	27	$21 - {}^{I}27$	4.01	3.61	1.00
11 : Social Interaction	164		2.38	0.77	0.46
	165		2.30	0.73	0.56
	166		1.78	0.90	0.51
	167		1.79	0.80	0.67
	168		1.95	0.85	0.59

* Item numbers refer to pilot test versions of Patient Review instruments.

Criterion Scale	Item No.*	Recode	Mean ($\bar{I}$)	S.D. (s_I)	Weight (W_I)
I2 : Night time Behavior	I76		I.25	0.52	0.40
	I77		I.09	0.3I	0.54
	I78		I.I9	0.45	0.4I
I3 : Antisocial Behavior	I8I		I.29	0.54	0.3I
	I82		I.09	0.35	0.42
	I83		I.I0	0.34	0.6I
	I84		I.09	0.34	0.59
I4 : Satisfaction with Facility	67		I.75	0.92	0.47
	68		I.53	0.80	0.39
	69		I.32	0.64	0.52
	70		I.56	0.77	0.47
	7I		I.88	I.0I	0.60
I5 : Need for Psychiatric Care	I00		I.I2	0.32	0.34
	I80		I.34	0.6I	0.43
	I86		I.27	0.44	0.50
I6 : Situational Memory	2	3 - I2	I.52	0.50	0.67
	3	3 - I3	I.42	0.49	0.66
	4	3 - I4	I.49	0.50	0.66
	5	3 - I5	I.46	0.49	0.72
I7 : Verbal Competence	35		I.3I	0.46	0.63
	36		I.29	0.46	0.79
	37		I.32	0.47	0.8I
	38		I.33	0.47	0.87
	39		I.3I	0.46	0.79
	40		I.45	0.50	0.65
	4I		I.34	0.47	0.8I
I8 : Spatial Orientation	49		I.I4	0.35	0.89
	50		I.I7	0.37	I.00
	5I		I.I7	0.38	0.86
	52		I.I2	0.32	0.83
	53		I.26	0.44	0.74
	54		I.26	0.44	0.74
	55		I.26	0.44	0.73
	56		I.29	0.45	0.6I
	57		I.3I	0.46	0.7I
	58		I.25	0.43	0.87
	59		I.3I	0.46	0.75
I9 : Social Judgment	28		I.42	0.49	0.76
	29		I.52	0.50	0.67
	30		I.59	0.49	0.59

* Item numbers refer to pilot test versions of Patient Review instruments.

Criterion Scale	Item No.*	Recode	Mean ($\bar{I}$)	S.D. (s_I)	Weight (W_I)
	31		1.63	0.48	0.45
	32		1.48	0.50	0.63
20 : Geriatric Rating Scale (GRS)					
	144/146	Scored as 1 if $I_{144} = 1$	1.26	0.64	1.00
	157	Scored as 2 if $I_{146} = 4$	1.75	1.10	1.00
	158	Scored as 3 if $I_{146} = 5$ or $I_{146} = 6$	1.55	0.95	1.00
	136		1.96	0.37	1.00
	123		1.43	0.50	1.00
	156		1.74	0.91	1.00
	155		1.38	0.95	1.00
	175		1.25	0.53	1.00
	134		7.29	0.46	1.00
	179		1.72	0.76	1.00
	169		1.83	0.94	1.00
	151		1.39	0.66	1.00
	165		2.30	0.73	1.00
	164		2.38	0.77	1.00
	168		1.95	0.85	1.00
	174		2.74	0.56	1.00
	166		1.78	0.90	1.00
	167		1.79	0.80	1.00
	181		1.29	0.54	1.00
	182		1.09	0.35	1.00
	183		1.10	0.34	1.00
	184		1.09	0.34	1.00
21 : Object Identification	6		1.51	0.50	0.69
	7		1.48	0.50	0.22
	8		1.27	0.45	0.53
	9		1.33	0.47	0.67
	10		1.26	0.44	0.71
	11		1.18	0.38	0.90
	12		1.37	0.48	0.69
	13		1.29	0.46	0.68
	14		1.65	0.48	0.61
	15		1.28	0.45	0.66
	16		1.37	0.48	0.62
	17		1.20	0.40	0.76
	18		1.42	0.49	0.46
	19		1.35	0.48	0.60
	20		1.30	0.46	0.67
	21		1.24	0.43	0.63
	22		1.37	0.48	0.67

* Item numbers refer to pilot test versions of Patient Review instruments.

Criterion Scale	Item No.*	Recode	Mean ($\bar{I}$)	S.D. (s_I)	Weight (W_I)
	23		1.55	0.50	0.90
	24		1.36	0.48	0.68
	25		1.31	0.46	0.61
22 : Digit Span/Forward	33	$10 - I_{33}$	4.17	2.23	1.00
23 : Digit Span/Backward	34	$8 - I_{34}$	2.45	1.67	1.00
24 : Physical Competence/ Mobility	125	**	4.07	3.75	1.00
25 : Physical Competence/ Eating	142	**	0.53	0.99	1.00
26 : Self Care/General	138	**	4.06	3.60	1.00
	132	**	4.09	3.47	1.00
27 : Nursing Care/General	91		1.04	0.29	1.00
	101		2.88	0.43	1.00
	103		1.27	0.56	1.00
	105		1.31	0.46	1.00
	106		1.19	0.39	1.00
	110		1.10	0.43	1.00
	111		1.36	0.48	1.00
	112		1.11	0.35	1.00
	113		1.21	0.57	1.00
	114		1.18	0.60	1.00
	115		1.27	0.46	1.00
	118		1.01	0.12	1.00
	107		1.00	0.00	1.00
	108		1.00	0.00	1.00
	109		1.02	0.18	1.00
28 : Verbal Intelligence Estimate	-	= .075 + .626 (Criterion No. 17) + .306 (Criterion No. 19) + .219 (Criterion No. 23).			

* Item numbers refer to pilot test versions of Patient Review instruments.

** These are Northwestern University Disability Scales, the recoding procedures are documented in "Calculation of Northwestern Disabilities (NUDS) Scale Scores" included in the following two pages.

CALCULATION OF NORTHWESTERN DISABILITIES (NUDS) SCORES

NUDS Scale		Scoring from new instrument
A (Walking)	=	0 if #125 = 1 1 if #125 = 2 2 if #125 = 3 3 if #126 = 4 4 if #126 = 5 5 if #126 = 6 6 if #128 = 1 7 if #128 = 2 8 if #129 = 3 and if #130 = 1 9 if #129 = 3 and if #130 = 2 10 if #129 = 4
B (Dressing)	=	0.00 if #138 = 1 1.25 if #138 = 2 2.50 if #138 = 3 3.75 if #139 = 4 5.00 if #139 = 5 6.25 if #139 = 6 7.50 if #140 = 7 8.75 if #140 = 8 10.00 if #140 = 1
C (Hygiene)	=	0.00 if #132 = 1 1.25 if #132 = 2 2.50 if #132 = 3 3.75 if #133 = 4 5.00 if #133 = 5 6.25 if #133 = 6 7.50 if #134 = 7 and if #135 = 1 8.75 if #134 = 7 and if #135 = 2 10.00 if #134 = 8
D-1 (Eating)	=	0 if #142 = 1 1 if #142 = 2 2 if #142 = 3 3 if #143 = 4 4 if #143 = 5 5 if #143 = 6
D-2 (Feeding)	=	0 if #145 = 1 1 if #145 = 2 2 if #145 = 3 3 if #146 = 4 4 if #146 = 5 5 if #146 = 6

NUDS Scale		Scoring from new instrument
E (Speech)	=	0.00 if #153 = 1 2.50 if #153 = 2 5.00 if #154 = 3 7.50 if #154 = 4 10.00 if #154 = 5

COMPUTATION OF MATCHING SCORES

The matching score, M_j for the jth resident criterion scale, C_j, is

$$M_j = \frac{\sum_m W_m C_m}{C_j \sum_m W_m}$$

Where C_m = facility's score score on Mth facility criterion, and

W_m = weight assigned to Mth facility criterion for matching purposes

For an explanation of the computational procedure see the section of this manual titled "Matching Scores and Satisfaction Indices". This appendix documents, for each resident criterion, the facility criteria and weights entered into these computations and the cutoff point ($\bar{M}_j - s_m$) derived from our pilot test data collected on 20 Illinois facilities and 280 of their patients.

Matching Scores

Need	Resident Criterion (C_j)	High Need Matching Score: Facility Criterion (C_m)		Weight (W_m)	Cutoff-point (M_j-s_M)	Low Need Matching Score: Facility Criterion (C_m)	Weight (W_m)	Cutoff-po ($\overline{M}_j$-s_M
08	Physical Competence/Hearing	04	Personalization of Environment	3	.77			
		17	Restorative Nursing Practice	3				
		23	Use of Programmatic Resources	3				
		26	Structured Activities	2				
		28	Resident Interaction	2				
		29	Staff Tolerance/Somatic	1				
		30	Staff Tolerance/Behavior	2				
		36	Inservice/For all Staff	2				
		38	Community Resources	1				
09	Physical Competence/Vision	01	Illumination	3	.76			
		02	View from Windows	1				
		09	Orderliness/Personal & Private Spaces	3				
		26	Structured Activities	3				
		29	Staff Tolerance/Somatic	1				
		30	Staff Tolerance/Behavior	2				
		36	Inservice/For all Staff Staff	2				
		38	Community Resources	1				
24	Physical Competence/Mobility	04	Personalization of Environment	2	.69			
		05	Building Complexity	3				
		09	Orderliness/Personal & Private Spaces	2				
		17	Restorative Nursing Practice	3				
		23	Use of Programmatic Resources	3				
		29	Staff Tolerance/Somatic	2				
		33	Encouragement of Patient Activity	3				

	Resident	High Need Matching Score				Low Need Matching Score		
Need	Criterion (C_j)	Facility Criterion (C_m)		Weight (W_m)	Cutoff-point (M_j-s_M)	Facility Criterion (C_m)	Weight (W_m)	Cutoff-pc ($\overline{M}_j$-s_M
25	Physical Competence/Eating	10	Food Service Personnel	1	.76			
		15	Nursing Service Staffing Levels	2				
		17	Restorative Nursing Practice	3				
		29	Staff Tolerance/Somatic	3				
		36	Inservice/For all Staff	2				
02	Self Care/Grooming	14	Residents' Grooming & Personal Care	3	.71			
		15	Nursing Service Staffing Levels	2				
		17	Restorative Nursing Practice	3				
		23	Use of Programmatic Resources	2				
		24	General Attractiveness	2				
		30	Staff Tolerance/Behavior	3				

eed	Resident Criterion (C_j)	High Need Matching Score				Low Need Matching Score		
		Facility Criterion (C_m)		Weight (W_m)	Cutoff-point (M_j-s_M)	Facility Criterion (C_m)	Weight (W_m)	Cutoff-po ($\overline{M_j}$-s_M
03	Change in Physical Status	13	Medical & Professional Support Staffing	3	.66			
		17	Restorative Nursing Practice	3				
		22	Documentation of Restorative Care	1				
		23	Use of Programmatic Resources	2				
		33	Encouragement of Patient Activity	1				
20	Geriatric Rating Scale (GRS)	no matching score						
26	Self Care/ General	14	Residents' Grooming & Personal Care	3	.67			
		15	Nursing Service Staffing Levels	2				
		17	Restorative Nursing Practice	3				
		23	Use of Programmatic Resources	2				
		24	General Attractiveness	2				
		30	Staff Tolerance/Behavior	3				
05	Special Nursing Care/Decubiti	13	Medical & Professional Support Staffing	1	.76			
		17	Restorative Nursing Practice	3				
		36	Inservice/For all Staff	2				
06	Special Nursing Care/ Catheters	13	Medical & Professional Support Staffing	1	.78			
		15	Nursing Service Staffing Levels	2				
		16	Nursing Supervision	1				
		17	Restorative Nursing Practice	3				
		[illegible]	Inservice/For all Staff	2				

	Resident	High Need Matching Score				Low Need Matching Score		
eed	Criterion (C_j)	Facility Criterion (C_m)		Weight (W_m)	Cutoff-point (M_j-s_M)	Facility Criterion (C_m)	Weight (W_m)	Cutoff-poi ($\overline{M}_j$-s_M
07	Special Nursing Care/Bowel & Bladder	13	Medical & Professional Support Staffing	1	.75			
		15	Nursing Service Staffing Levels	2				
		17	Restorative Nursing Practice	3				
		23	Use of Programmatic Resources	3				
		36	Inservice/For all Staff	2				
27	General Nursing Care	13	Medical & Professional Support Staffing	2	.94			
		15	Nursing Service Staffing Levels	3				
		16	Nursing Supervision	3				
		18	Nursing Policies	2				
		20	Medications/Practices	1				
		35	Inservice/Use of Professional Resources	2				
		36	Inservice/For all Staff	2				
		40	Patient Records	2				

Resident Need Criterion (C_j)	High Need Matching Score				Low Need Matching Score			
	Facility Criterion (C_m)		Weight (W_m)	Cutoff-point (M_j-s_M)	Facility Criterion (C_m)		Weight (W_m)	Cutoff-point (M_j-s_M)
04 Change in Mental Status	01	Illumination	2	.65	02	View from Windows	1	.48
	04	Personalization of Environment	1		04	Personalization of Environment	4	
	05	Building Complexity	2		09	Orderliness/Personal & Private Spaces	3	
	13	Medical & Professional Support Staffing	2		12	Food Service/Attractiveness	1	
	14	Residents' Grooming & Personal Care	1		23	Use of Programmatic Resources	4	
	15	Nursing Service Staffing Levels	2		24	General Attractiveness	3	
	17	Restorative Nursing Practice	3		25	Activity Level	4	
	22	Documentation of Restorative Care	1		27	Informal Activities	4	
	23	Use of Programmatic Resources	3		28	Resident Interaction	4	
	26	Structured Activities	3		31	Staff Recognition	3	
	30	Staff Tolerance/Behavior	3		32	Residents' Openness with Staff	2	
	31	Staff Recognition	2		33	Encouragement of Patient Activity	4	
	35	Inservice/Use of Professional Resources	2		34	Group Spirit	1	
	36	Inservice/For all Staff	1		35	Inservice/Use of Professional Resources	2	
					36	Inservice/For all Staff	1	
					38	Community Resources	4	
12 Night-time Behavior	"	"	"	.81	"	"	"	-.50*
13 Antisocial Behavior	"	"	"	.82	"	"	"	.13
15 Need for Psychiatric Care	"	"	"	.79	"	"	"	.52
01 Communication Skills	"	"	"	.76	"	"	"	.57

Resident Need Criterion (C_j)		High Need Matching Score			Low Need Matching Score		
		Facility Criterion (C_m)	Weight (W_m)	Cutoff-point (M_j-s_M)	Facility Criterion (C_m)	Weight (W_m)	Cutoff-point (M_j-s_M)
10	Memory Span	"	"	-.03*	"	"	.40
11	Social Interaction	"	"	.72	"	"	.72
16	Situational Memory	"	"	.62	"	"	.63
19	Social Judgment	"	"	.58	"	"	.62
17	Verbal Competence	"	"	.62	"	"	.53
21	Object Identification	"	"	.63	"	"	.55
22	Digit Span/Forward	"	"	.58	"	"	.36
23	Digit Span/Backward	"	"	.26	"	"	.36
28	Verbal Intelligence Estimate	"	"	-.21*	"	"	.44
18	Spatial Orientation	"	"	.71	"	"	.71

Resident Need	Criterion (C_j)	High Need Matching Score: Facility Criterion (C_m)	Weight (W_m)	Cutoff-point (M_j-s_M)	Low Need Matching Score: Facility Criterion (C_m)	Weight (W_m)	Cutoff-point (M_j-s_M)
14	Satisfaction with Facility	03 Condition of Plant	3	.59			
		04 Personalization of Environment	3				
		06 Unpleasant Odors	3				
		07 Cleanliness	3				
		11 Food Service/Cleanliness	2				
		12 Food Service/Attractiveness	3				
		13 Medical & Professional Support Staffing	3				
		15 Nursing Service Staffing Levels	2				
		24 General Attractiveness	2				
		27 Informal Activities	1				
		37 Professionalism of Staff	2				

*Since matching scores cannot be less than 0 these cutoff-points, resulting from skewed criterion scale distributons, are effectively 0.

APPENDICES

APPENDIX A

REVIEW OF FEDERAL CERTIFICATION STANDARDS

November 6, 1972

M E M O R A N D U M

TO: Richard C. Jelinek, Ph. D.
Mark H. Lepper, M. D.

FROM: Bob Richard

SUBJECT: Federal regulation of long-term care facilities

The purpose of this memorandum is to clarify the articulation of the nursing home project to current federal standards governing use of Medicare and Medicaid funds to support patients in long-term care facilities (Titles XVIII and XIX of the Social Security Act).

The major purpose of Medicare and Medicaid standards is to insure that federal dollars spent for medical and nursing care buy minimally the appearance (hopefully the reality) of the care they are paid out for. The premium paid for this insurance is of two kinds. First, a variety of structural criteria are specified which individual care agencies (e.g. nursing homes) must meet in order to qualify for federal payments. In the case of Medicare, individual facilities must apply for certification as Extended Care Facilities (ECFs) independently of state licensing (although the state licensing agency usually does the certifying). In the case of Medicaid, states must incorporate federal standards into their licensing in order to qualify for federal money. Second, Medicaid requires states to monitor the status of federally-supported patients in long-term care facilities on an individual-by-individual basis.

Our proposal to NCHSRD (incorporated in the contract) specifies that our product is to be a measure of process rather than structure. Thus its substantive focus is significantly different from that inherent in Titles XVIII and XIX.

Our purpose, as conceived in the proposal and, therefore, presumed accepted by HEW, is also significantly different. We have adopted the long-range strategy of developing a process measure of quality of management, care, and rehabilitation without regard to whether our criteria and "quality construct" could be incorporated directly, by legislation or administratively, into regulatory activities. (We are, however, designing an instrument usable more or less within state regulatory time and manpower constraints.)

The product of this phase of the project is a means of measuring quality. We propose, as a second phase, to examine carefully the problems inherent in extending traditional regulatory standards and procedures, based on structural characteristics, into the process area. We adopted this two-stage strategy in preference to shaping (and thus limiting) our instrument in advance to current regulatory constraints.

Although the project was conceived from a different point of view, and concentrates on different substantive areas from federal standards there is an important relationship. Measurement of process must include some structural elements. Our own data, especially the forms entitled "Administrator's Report" and "Review of Organization, Policies, and Procedures," reflect a large number of structural characteristics. (These forms are, as you know, abridged and edited versions of the JCAH application for survey and survey report for long-term care facilities.)

More concretely, we need to take into account the "Conditions of Participation" for Medicare (see our contract, Art. I-B, Paragraph 2) and Medicaid provisions. We have deliberately placed our emphasis on process, and specifically on psycho-social, as opposed to medical, patient attributes and attributes of care. Despite this emphasis, we are doing the following with respect to federal regulatory standards.

1. With regard to Medicaid standards, we plan to incorporate into our data base the protocol used by the Illinois Department of Public Health for inspection and licensing purposes. This protocol reflects the entirety of the state's regulatory-standards and incorporates Medicaid (since all eight facilities are licensed, at least in part, for skilled care). We have asked for, and been given, access to the data on the eight facilities in our sample collected by IDPH during the most recent annual inspection. This data consists of ratings on over 200 items (or "criteria"), each on a 0 - 5 scale. It will be combined with our own data for statistical analysis and scale construction.

2. Our own data on a sample of patients in each home will cover all but two of the sixteen items of information collected by Illinois Department of Public Aid and Department of Public Health under their medical review procedure. (This procedure is designed to be responsive to the reimbursement requirements of Medicaid.) For most of the sixteen categories, our information will consist of several items instead of one. We will not, however, obtain explicit information on need for, or provision of, oxygen or suctioning.

It should be pointed out that the state's medical review procedure does not specify sources of information for each item. We are collecting patient information in four ways (observation of patient, interview with staff, questionnaire filled out by staff, records) and will have some opportunity during our data analysis to compare these sources. Thus our own instrument should make some contribution to overcoming this very serious measurement problem inherent in the current Illinois medical review -- a problem only compounded by the expectation that medical reviews are done at the rate of twenty per man-day.

We have considered the possibility of requesting access to the state's medical review data on patients in our sample who are supported by Public Aid (i.e. in part by Medicaid). This does not seem advantageous for three reasons. First the data on only a subsample of our patients (those on Public Aid) would be available. Thus we could not enter the information directly into our planned analysis, but would have to analyze it separately. Second, we question the quality of the data, for reasons referenced above. Third, serious issues of confidentiality might be raised by requesting IDPH to "loan" us this data.

3. With regard to Medicare, three of the facilities in our sample are certified as ECFs and five are not. We do not have direct access to information about these five homes in terms of their compliance with specific Medicare-ECF criteria, except insofar as these items are covered in our own data collection schedules and/or the IDPH protocol.

Below is a list of specific Medicare-ECF criteria which are not replicated fairly closely by the data we plan to have. The list is in two parts. The first contains items that might reflect on process characteristics, the second items that are purely structural. (This list is based on the "Extended Care Facility Survey Report," Form SSA-1569. Number references are to the U. S. Code of Regulations.)

3 A. The following may conceivably be related to process measurement of quality of life and care:

II. ADMINISTRATION (405.1121)

(d) Notification of Changes in Patient Status

(2) Information describing the care and services provided by the facility is accurate and not misleading.

V. NURSING SERVICES (405.1124)

(d) Charge Nurses

(3) It is desirable that the nurse in charge of each tour of duty be trained or experienced in areas such as nursing administration and supervision, rehabilitation nursing, psychiatric or geriatric nursing.

(f) Restorative Nursing Care

(3) Consultation and instruction in restorative nursing available from State or local agencies are utilized.

(g) Dietary Supervision

(4) Food and fluid intake of patients is observed and deviations from normal are reported to the charge nurse. Persistent unresolved problems are reported to the physician.

VI. DIETARY SERVICES (405.1125)

(b) Adequacy of Dietary Staff

(1) There are food service employees on duty over a period of 12 or more hours.

(g) Planning of Menus

(2) Menus provide a sufficient variety of foods served in adequate amounts at each meal. Menus are different for the same days of each week and are adjusted for seasonal changes.

(h) Preparation of Food

(2) Food is cut, chopped or ground to meet individual needs.

(6) Trays provided bedfast patients rest on firm supports such as overbed tables. Sturdy tray stands of proper heights are provided patients able to be out of bed.

VIII. PHARMACEUTICAL SERVICES (405.1127)

(d) Labeling and Storing Medications

(9) Medications having an expiration date are removed from usage and properly disposed of after such date.

IX. DIAGNOSTIC SERVICES (405.1128)

(a) Provisions for Diagnostic Services

(2) The physician is notified promptly of the test results.

(3) Arrangements are made for the transportation of patients, if necessary, to and from the source of service.

(4) Simple tests, such as those customarily done by nursing personnel for diabetic patients, may be done in the facility.

(5) All reports are included in the clinical record.

X. DENTAL SERVICES (405.1129)

(a) Provision for Dental Care

(3) Nursing personnel assist the patient to carry out the dentist's recommendations.

XI. SOCIAL SERVICES (405.1130)

(d) Confidentiality of Social Data

(1) The staff member responsible for social services participates in clinical staff conferences and/or confers with the attending physician prior to admission of the patient, at intervals during the patient's stay in the facility, and prior to discharge of the patient, and there is evidence in the record of such conferences.

(2) The staff member and nurses responsible for the patient's care confer frequently and there is evidence of effective working relationships between them.

XIV. TRANSFER AGREEMENT (405.1133)

(b) Interchanges of Information

(3) The agreement provides for the transfer of personal effects, particularly money and valuables, and for the transfer of information related to these items.

XV. PHYSICAL ENVIRONMENT (405.1134)

(e) Patient's Bedrooms and Toilet Facilities

(8) Doors to patient bedrooms are never locked.

XVII. DISASTER PLAN (405.1136)

(a) Disaster Plan

(2) All personnel are trained to perform assigned tasks.

(3) Simulated drills testing the effectiveness of the plan are conducted on each shift at least three times a year.

3 B. The following structural characteristics also are not covered:

II. ADMINISTRATION (405.1121)

(a) Governing Body.-There is a governing body which assumes full legal responsibility for the overall conduct of the facility.

(b) Full-Time Administrator

(3) The administrator's responsibilities for procurement and direction of competent personnel are clearly defined.

(5) The administrator may be a member of the governing body.

III. PATIENT CARE POLICIES (405.1122)

(a) Policies Regarding Nursing and Medical Care

(2) The factors explaining the standard are as follows:

(i) It is desirable that the group of professional personnel responsible for patient care policies includes health personnel such as social workers, dietitians, pharmacists, speech pathologists and audiologists, physical and occupational therapists, and mental health personnel. Pharmacy policies and procedures are preferably developed with the advice of a subgroup of physicians and pharmacists serving as a pharmacy and therapeutics committee.

(ii) Some members of this group are neither owners nor employees of the facility.

(iii) The group meets at regularly scheduled intervals and minutes of each meeting are recorded.

(iv) The group may serve one or more facilities.

(b) Responsibilities; Execution of Patient Care Policies

(1) If the organized medical staff is responsible, an individual physician is designated to maintain compliance with overall patient care policies.

IV. PHYSICIAN SERVICES (405.1123)

(c) Availability of Physicians for Emergency Care

(1) A schedule listing the names and telephone numbers of these physicians and the specific days each is on call is posted in each nursing station.

V. NURSING SERVICES (405.1124)

(d) Charge Nurse

(1) A State-approved school of practical nursing is one whose standards of education meet those set by the appropriate State nurse licensing authority.

(2) Some State laws grant practical nurse licensure (nonwaivered) to certain individuals who have an educational background considered to be equivalent to graduation from a State-approved school of practical nursing. Such licensure determination is made by the appropriate State nursing authority on the basis of evaluation of the individual's educational achievements, as well as on successful completion of the appropriate State licensing examination. Licensure under such conditions may be accepted as meeting the requirements of graduation from a State-approved school of practical nursing.

VI. DIETARY SERVICES (405.1125)

(a) Dietary Supervision

(2) The designated person is a graduate of baccalaureate degree program with major studies in food and nutrition.

(h) Preparation of Food

(1) A file of tested recipes, adjusted to appropriate yield, is maintained.

(i) Maintenance of Sanitary Conditions

(3) Written reports of inspections by State or local health authorities are on file at the facility with notation made of action taken by the facility to comply with any recommendations.

IX. DIAGNOSTIC SERVICES (405.1128)

(a) Provisions for Diagnostic Services

(1) All diagnostic services are provided only on the request of a physician.

X. DENTAL SERVICES (405.1129)

(a) Provision of Dental Care

(2) The extended care facility, when necessary, arranges for the patient to be transported to the dentist's office.

XIII. CLINICAL RECORDS (405.1132)

(c) Confidentiality of Records.-Information contained in the clinical records is treated as confidential and is disclosed only to authorized persons.

XIV. TRANSFER AGREEMENT (405.1133)

(a) Patient Transfer.-The transfer agreement provides reasonable assurance that transfer of patients will be affected between the hospital and the extended care facility whenever such transfer is medically appropriate as determined by the attending physician.

(c) Execution of Agreement

(1) When the hospital and extended care facility are not under common control, the terms of the transfer agreement are established jointly by both institutions.

(2) Each institution participating in the agreement maintains a copy of the agreement.

(d) Specification of Responsibilities.-The transfer agreement speci the responsibilities each institution assumes in the transfer of patients information between the hospital and the extended care facility. The agre ment establishes responsibility for notifying the other institution promp of the impending transfer of a patient; arranging for appropriate and saf transportation; and arranging for the care of patients during transfer.

(e) Presumed Agreement Where Necessary for Provision of Services. Any facility which does not have a transfer agreement in effect but whic found by the State agency conducting the survey (or, in the case of a St in which there is no such agency, by the Secretary) to have attempted i faith to enter into a transfer agreement with a hospital sufficiently c to the facility to make feasible the transfer between them of patients medical and other information, shall be considered to have such an agr in effect if and for so long as it is also found that to do so is in t public interest and essential to assuring extended care services for p in the community eligible for benefits.

XV. PHYSICAL ENVIRONMENT (405.1134)

(a) Safety of Patients.-The extended care facility is constructed, equipped, and maintained to insure the safety of patients. It is structurally sound.

(b) Favorable Environment for Patients.-The extended care facility is equipped and maintained to provide a functional, sanitary and comfortable environment. Its electrical and mechanical systems (including water supply and sewage disposal) are designed, constructed, and maintained in accordance with recognized safety standards and comply with applicable State codes and regulations.

(c) Elevators

(1) Installation of elevators and dumbwaiters complies with all applicable codes.

(2) Elevators are of sufficient size to accommodate a wheeled stretcher.

(d) Nursing Unit

(2) Equipment necessary for charting and recordkeeping is provided.

(3) The medication preparation area is well-illuminated and is provided with hot and cold running water.

(5) Toilet and handwashing facilities are provided.

(e) Patients' Bedrooms and Toilet Facilities

(3) Each patient room has a lavatory with both hot and cold running water, unless provided in adjacent toilet or bathroom facilities.

(4) On floors where wheelchair patients are located, there is at least one toilet room large enough to accommodate wheelchairs.

(5) Each bathtub or shower is in a separate room or compartment which is large enough to accommodate wheelchair and attendant.

(6) At least one water closet, enclosed in a separate room or stall, is provided for each eight beds.

(7) Substantially secured grab bars are installed in all water closet and bathing fixture compartments.

(f) Facilities for Isolation.-Provision is made for isolating infectious patients in well-ventilated single bedrooms having separate toilet and bathing facilities. Such facilities are also available to provide for the special care of patients who develop acute illnesses while in the facility and patients in terminal phases of illness.

(g) Examination Rooms.- A special room (or rooms) is provided for examinations, treatments, and other therapeutic procedures.

XVII UTILIZATION REVIEW (405.1137)

None of the material on utilization review is covered.

The above listing indicates that our material on process areas such as nursing care covers all but isolated items in the Medicare Standards. The far greater part of the Medicare Standards not covered are structural and, in fact, very technical and detailed. Thus we adequately take account of these standards to the degree that they bear on the goals of the project.

In summary, our planned data collection and analysis emphasize measures of process, and specifically psycho-social, criteria. This emphasis is a consequence of the goals of the project as specified in the proposal and contract. Nonetheless we will adequately cover structural criteria and will, more specifically, obtain measures responsive to all but a few federal regulatory standards.

RJR:mew

APPENDIX B

FACILITY STAFF ORIENTATION

1. Original Initial Data Collection Introduction
2. Revised Initial Data Collection Introduction
3. Pilot Test Orientation Memorandum
4. Pilot Test Introduction

RUSH-PRESBYTERIAN-ST. LUKES MEDICAL CENTER

1753 WEST CONGRESS PARKWAY, CHICAGO 60612

EVALUATION OF QUALITY OF CARE AND LIFE IN LONG-TERM CARE FACILITIES

September 11, 1972

A WORD TO THE STAFF OF

Your agency is participating in a research project being done by the Rush-Presbyterian-St. Luke's Medical Center in Chicago. You will see several members of the research team here during the next four months. We would like to take a moment of your time to explain what the project is about, what we will be doing here, and what you can do to help us.

This is a scientific research project. Its purpose is to develop better ways to measure the quality of nursing homes and other long-term care facilities such as yours. During September and October we will collect data in this home and seven others. We will then use this data to develop an evaluation procedure. Finally, in November and December we will try out our evaluation procedure in the same eight homes. The people from our project who come in November and December will act like they are doing an inspection for a Department of Public Health. In fact, however, they will only be trying out our evaluation procedure to see if it works.

Neither the data collected in the next two months, nor results of the trial inspections during November and December will be given to any government agency for use in licensing or regulating the eight homes. The government will receive a report in which individual homes and patients are identified only by code numbers.

The project is funded by a contract between the Health Services and Mental Health Administration, which is an agency of the federal Department of Health, Education and Welfare (HEW), and Rush-Presbyterian-St. Luke's Medical Center (RPSL). In turn, RPSL has a contract with the MEDICUS Systems Corporation, a company providing a variety of services to health care organizations, for a substantial part of the project.

The purpose of the project is to design a procedure for evaluating nursing homes which is economical and simple to use. We hope that both outside inspectors and people in the homes themselves will be able to use it to measure quality of care. The procedure will be based on the best measurement techniques currently available in two areas: needs of patients, and quality of the atmosphere and environment provided by the home.

The initial data collection (September and October) will be done using procedures that have already been developed and reported in medical, nursing and social work literature. We will gather information by talking with the aministrator and other staff members, meeting and interviewing patients, and by observing the activities going on while we are here. This data will be analyzed using a computer to find out what specific questions and procedures are the most accurate and economical. Together with the suggestions of a number of experienced professionals, this anlaysis will be the basis on which we design and select the questions and procedures we will try out during November and December.

Our evaluation method will be concerned mostly with the process of caring for the elderly, and not so much with the physical or organizational structure of the facility. We will also be concerned with the match between the kinds of patients in each home and the kinds of care which that home is best able to give. As a result, we will be talking to and observing a group of individual patients (selected randomly from all the patients here), as well as making observations about the entire home.

Finally, we would like to ask you to do several things for us:

1. Don't be afraid of us. We are not evaluating this home, or reporting to anyone our opinions about it. We are doing research on what makes a nursing home a good one as opposed to a bad one.

2. We may ask you to help us find our way around, or find individual patients so that we may speak with them. Please try to help us.

3. We may ask some of you to fill out a short and easy questionnaire. No one will be asked to write his or her name on the questionnaire, and no one's answers will be identified by name. We appreciate your dooperation.

4. We may ask some of you a few questions about a specific patient. Again, we ask your cooperation.

Thank you.

RUSH-PRESBYTERIAN-ST. LUKES MEDICAL CENTER

1753 WEST CONGRESS PARKWAY, CHICAGO 60612

EVALUATION OF QUALITY OF CARE AND LIFE IN LONG-TERM CARE FACILITIES

February 1, 1973

A WORD TO THE STAFF OF

This facility is participating in a research project being done by the Rush-Presbyterian-St. Luke's Medical Center in Chicago. You will see several members of the research team here during February and March. We would like to take a moment of your time to explain what the project is about, what we will be doing here, and what you can do to help us.

You may remember that we have been here before, last August and September. Since October our work has been delayed, but now we are ready to take up where we left off.

This is a scientific research project. Its purpose is to develop better ways to measure the quality of the care given by nursing homes and other long-term care facilities such as yours. During the next two months we will collect data in this home and in seven others. We will use this data to develop a new evaluation procedure. After that, we hope to be able to try out our evaluation procedure in the same eight facilities. This will depend on finding money to continue the project.

The project is funded by a contract between the Health Services and Mental Health Administration, which is an agency of the federal Department of Health, Education and Welfare (HEW), and Rush-Presbyterian-St. Luke's Medical Center (RPSL). In turn, RPSL has a contract with the MEDICUS Corporation, a company providing a variety of services to hospitals and other health organizations, for a substantial part of the project.

None of the data collected by our project staff will be given to any government agency for use in licensing or regulation. The government will receive a report in which individual homes and patients are identified only by code numbers.

The purpose of the project is to design a procedure for evaluating nursing homes which is economical and simple to use. We hope that both outside inspectors and people in the homes themselves will be able to use it to measure quality of care. The procedure will be based on the best

measurement techniques now available in three areas: needs of patients, quality of the atmosphere and environment provided by the home, and appropriateness of placement of different kinds of patients in different kinds of homes.

The data collection during February and March will be done using procedures that have already been developed and reported in medical, nursing and social work literature. We will gather information by talking with the administrator and other staff members, meeting and interviewing patients, and by observing the activities going on while we are here. This data will be analyzed using a computer to find out what specific questions and procedures are the most accurate and economical. Together with the suggestions of a number of experienced professionals, this analysis will be the basis on which we design and select the questions and procedures we will use in our new method.

Our evaluation method will be concerned mostly with the process of caring for the elderly, and not so much with the physical or organizational structure of the facility. We will also be concerned with the match between the kinds of patients in each home and the kinds of care which that home is best able to give. As a result, we will be talking to and observing a group of individual patients (selected randomly from all the patients here), as well as making observations about the entire home.

Finally, we would like to ask you to do several things for us:

1. Don't be afraid of us. We are not evaluating this home, or reporting to anyone our opinions about it. We are doing research on what makes a nursing home a good one as opposed to a bad one.

2. We may ask you to help us find our way around, or find individual patients so that we may speak with them. Please try to help us.

3. We may ask some of you to fill out a short and easy questionnaire. No one will be asked to write his or her name on the questionnaire, and no one's answers will be identified by name. We appreciate your cooperation.

4. We may ask some of you a few questions about a specific patient. Again, we ask your cooperation.

Thank you.

FROM: Robert J. Richard,
Project Manager
Nursing Home Evaluation Project

DATE: September 25, 1973

TO:

SUBJECT: Orientation to Project

Thank you for accepting our invitation to participate in this phase of our work. In our recent telephone conversation, we have scheduled our first survey (s) of your facility for October . The purpose of this memo is to acquaint you with our survey procedures, so you will know what to expect and can make the few preparations required. Please review each point carefully.

(1) The project's field coordinator is Janet Feldman, R.N. Mrs. Feldman is director of nursing of The Johnston R. Bowman Health Park as RPSL. She will be glad to answer any questions you may have about the project, and is the person to call should questions or difficulties arise at any point in our work. She may be reached at 312/942-5379.

(2) We have, in most cases, already asked you to designate an individual on your staff as liaison to the project. This person could, of course, be yourself. His or her primary responsibilities are to schedule our survey visits, to meet the surveyors when they arrive and introduce them to the faculty, and to be available to assist them from time to time during their day in the faculty. Please go over this memo with the designated project liaison.

(3) A number of copies of a brief project description are enclosed, hopefully enough to distribute one to each person on your payroll. Please be sure these are distributed to all staff before the first survey. One good way to do this is to distribute them with paychecks. Let your staff know when the survey will occur, and that they should not be afraid to answer the surveyor's questions.

(4) Also enclosed for your own information is a document entitled "Summary of Interim Report." This is the best introduction to the project as a whole that we have available. It may raise quetions on technical points that it does not answer, but it should nonetheless be helpful to you. Although we cannot meet with all of you individually to discuss the project in detail, we would be happy to answer any questions you may have by phone.

FORM NO 0189 9-71

Internal Use Only

(5) As part of our survey, we ask that you fill out the enclosed "Administrator's Report" (Section 1 of the facility survey). All questions should be answered in terms of the date for which the first survey is scheduled. This means that someone will answer Q. 27-42 on that day. The rest of the form, however, can be completed ahead of time. Please note in Q. 43, 44, 72, and 73 that the first survey will take place in October. Thus, Q. 43, and 44 refer to July, August, and September, and Q. 72 and 73 to September. Also, please keep track of the total amount of time you and the staff spend working on the form. Your time estimate will be part of the data we look at in evaluating our own procedures. The surveyors will pick up the completed form the day of the survey.

(6) On the day of the survey, have available an up-to-date census list from which the two surveyors can draw a sample of eight residents for review as soon as they arrive. If all your kardex records, charts, or identification cards are located in one place, these are just as convenient as a written list.

(7) Please have available a staff roster for all nursing service personnel. Six names will be selected at random from this list, two for interviews of half an hour each and four to complete a very short written questionnaire. Names will be sampled until six are obtained who are on duty during the survey. If there are fewer than six nursing service personnel on duty, additional names will be selected from among other personnel.

A word about the selection of these staff members: it is very important to the accuracy of the evaluation that we select these personnel as randomly as possible. After the two names are drawn for interviewees, the liaison person should contact each person's immediate supervisor and arrange with him or her a time when the employee will be able to spend approximately half an hour with the surveyor. If for some reason a specific individual cannot be made available for a half-hour, another name will be selected at random. The liaison person should then contact this person's supervisor. It is important, however, to keep occurances of this problem at a minimum. Four additional names will then be selected and the liaison person asked to help distribute questionnaires to them at the beginning of the day so that the four employees will have the entire shift to fill them out. We expect this form will take 10 - 15 minutes to complete.

(8) Finally, we will want to select at random one personnel record, on an employee in your dietary area, for a very bried review.

RUSH-PRESBYTERIAN-ST. LUKES MEDICAL CENTER

1753 WEST CONGRESS PARKWAY, CHICAGO 60612

September 24, 1973

A NOTE TO ALL STAFF MEMBERS

This facility is taking part in a research project on evaluation of long-term care being done by the Rush-Presbyterian-St. Luke's Medical Center in Chicago. You will see four members of the project team here during October and November. We would like to take a moment of your time to introduce ourselves and to explain what the project is about.

This is a scientific research project. Our purpose is to develop new ways to measure the quality of the care given in nursing homes and other long-term care facilities, like the one you work in. We have already collected and analyzed one set of data and designed new survey methods. Now we are testing these new procedures in this facility and in a number of others. This test will lead to improvements in our evaluation tools.

In some ways our test surveys will be like an inspection by a government agency. In other ways they will be somewhat different. You should remember, however, that we are not government inspectors. We are doing research on what makes a nursing home a good one as opposed to a bad one.

None of the information we collect will be given to any government agency for use in licensing or regulation. No one except members of the project staff will see any of the answers to any of our questions. The reports we publish will include only numerical scores and will identify specific facilities and individuals only by code numbers and not by name.

We will do two surveys, one in October and another in November. We will also make a second October visit to a small number of homes. To do each survey two people will spend one day together in the facility. They will choose eight residents at random to talk with. In addition, they will sit down with several of you to ask specific questions about the facility or about one of the eight residents. They will also ask four staff members to fill out a short form. Finally, they will spend time just watching what goes on.

There are no "right" answers to the questions the surveyors will ask. They will want to know what the person they are talking to thinks, not what he has heard someone else say.

The four surveyors who will visit this facility are Louise Cruz, Carol Cummens, R. N., Lois Raedeke, R.N., and Jo Ann Shenk, R.N. Mrs. Cruz has worked for 18 years as a market research interviewer, after 2-1/2 years of nursing school. Mrs. Cummens has been director of nursing of an 85 bed long-term care facility, an instructor in medical-surgical nursing, and a public health nurse. Mrs. Raedeke has been a staff nurse and a teacher-nurse in the Chicago public school system. Mrs. Shenk has worked as a public health nurse for a county health department, and a charge nurse in an extended care facility.

Finally, we would like to ask you to do several things to help our surveyors when they come:

1. They may ask you to help find their way around, or find individual residents they need to see and talk to. Please try to help.

2. When they need to interview staff members individually they will clear it with the person's supervisor so he or she may take some time to talk with them.

3. They will ask a few of you to fill out a brief form. You should not write your name on the form. No one will see your answers except the project staff. The surveyors will be glad to help you with the form in any way they can.

4. Don't be afraid of us. We are not inspecting your facility for the government. No one will find out what you tell the surveyors, or even that your facility was in our sample.

Thank you. The success of our project depends on your help.

APPENDIX C

ABBREVIATED ADMINISTRATOR'S REPORT

FOR RESURVEY

OMB NO. 68-S72092

APPROVAL EXPIRES 11-31-73

Rush-Presbyterian-St. Luke's Medical Center

FACILITY SURVEY

SECTION I: ADMINISTRATOR'S REPORT

Facility _____ [ ][ ] Col. 1-

Date _____ [ ][ ] month [ ][ ] day 5-

[0][1] card 10-1

NOTE TO THE ADMINISTRATOR

This form is to be filled out by you or your designee. You may need to speak to nursing staff or other personnel about some of the items. Answer in terms of the day of the survey as indicated above. Please keep track of the amount of time you spend working on the form so you can answer the last question.

Some questions call for numerical answers--please write these in the boxes on the form, one digit per box. Use leading zeroes so that each box has a figure in it. Other questions call for you to circle a number corresponding to the most appropriate answer for your facility.

All information is confidential to this research project. It cannot be released to government agencies. The success of the project, and thus of your facility's contribution to development of new survey methods, depends on the accuracy of your answers.

The project's surveyors will be glad to answer any questions you may have about this questionnaire.

27.	Today's census:	Total	64-66/999
28.		Skilled	67-69/999
29.		Intermediate (ICF-I)	70-72/999
30.		Sheltered (ICF-II)	73-75/999

TOTAL OF Q. 28-30 SHOULD EQUAL Q. 27.

31.	Number of ambulatory patients	76-78/999

Repeat col. 1-
from card 01
10-11/02

32.	Number of patients needing assistance of personnel to ambulate	13-15/999
33.	Number of patients allowed bed to chair privileges (at least part of day)	16-18/999
34.	Number of patients at complete bed rest (not up at all)	19-21/999

TOTAL OF Q. 31-34 SHOULD EQUAL CENSUS (Q. 27)

35.	Number of patients completely able to feed self	22-24/999
36.	Number of patients needing partial assistance at meals	25-27/999
37.	Number of patients totally unable to feed self	28-30/999

TOTAL OF Q. 35-37 SHOULD EQUAL CENSUS (Q. 27)

38.	Number of continent patients	31-33/999
39.	Number of incontinent patients	34-36/999
40.	Number of patients with indwelling catheters	37-39/999

TOTAL OF Q. 38-40 SHOULD EQUAL CENSUS (Q. 27)

41.	Number of acutely ill patients	40-42/999
42.	Number of patients receiving physical therapy	43-45/999

43. During the three (3) calendar months preceeding this one, how many residents were discharged from this facility to a non-institutional setting - for example, to his/her family, a boarding home, or foster home? (Do not include residents discharged to another hospital, long-term facility, or other institution. Note: If today is June 22, answer in terms of March 1 to May 31.) 46-48/999

44. During the three (3) calendar months preceeding this one, how many residents expired while being carried on the census of the facility? 49-51/999

Note: Your bookkeeper may be the best source of the information in Q. 72-73.

72. How many physicians saw residents (patients) in the calendar month preceeding this one? ☐☐ 28-29/99

73. In the calendar month preceeding this one, how many residents were seen by physicians? ☐☐☐ 30-32/999

74. Are your answers to Q. 72-73 33/9

Based on actual knowledge----- 1

Just your best estimate------- 2

APPENDIX D

PILOT TEST SURVEYORS' COMMENTS

The following subjective comments are edited from the notebooks of the pilot test surveyors and from tape recordings of debriefing sessions. The editing was done to remove comments that might identify individual facilities. These comments were made during the period October 1 to November 27, 1973.

Facility No. 1

There is a feeling of crowded congestion and milling people from the time you enter. Most of the men look fairly well put together and most were shaved (3 orderlies working). About 20 women were in lounge doing exercises when I arrived. At the present time 2 girls are doing the activities and the calendar is full. Craft area is in basement. Today 2 men beauticians are here doing hair (home gets a percent of fee). Activities director and ladies bake the birthday cake one day and morning of next day frost and decorate the cake for the monthly birthday in P.M. All birthday celebrants of the month have picture taken and placed on bulletin board.

Aides are carrying a heavy assignment 15 patients to 1 aide. They are doing very little interacting with residents. They are just getting the basic job done. Saw much assistance of each other by the residents; many seemed very friendly with each other and helping each other out. When one man returned from the hospital, "Such a greeting." They made him feel like they were genuinely glad to have him back, and they really missed him while he was gone.

Lounge is still full of bodies just sitting there. Rooms are so crowded they probably feel better in the larger room. High percentage of men here who have become reconciled to institutional living. Some are very young (44).

The 11-7 shift gets everybody up in A.M., but at noon they were still doing beds and baths. Very noisy place. It would make the average well person nervous.

Director of nursing still sits at the command post with the microphone in her hand calling out the orders constantly. I must give her credit as the lights are answered and patient needs seem to be taken care of quickly (had been critical last time I was here about patients left on toilet for hour at a time.) The staff doesn't seem to mind as they just "hop to" when she speaks. Many on day shift are long-time employees, and they are not unkind but do not give of themselves. The nursing notes were the most complete I have seen in a long time.

No rehab is seen being done here. Aides do not wear gait belts and don't see any being used.

They have a beautiful in-service program "on paper." It lists very ideal perfect subjects; presented weekly (?) by an in-service coordinator from another home. Attendance records show administrator and the director of nursing and 1 assistant all sessions - other professionals when they are around but no aides. The director of nursing talks with aides once in a while. Very little interaction between staff and residents. Each seems concerned with one day's work.

The director of nursing has gone out of her way to make things easy for us to find. Finding the manuals, procedure book, etc.

Effort has been made to make front entrance attractive, but toward the back in the maximum care area there is little decoration. Men are sitting unattended just staring.

An R.N. consultant was here today from the pharmacy supplier. She was checking the charts for drug orders, dates, etc.

The decorating was good. Rooms were colorful and attractive.

Nursing personnel used for clerical and medical tasks and not used for nursing care--either supervision of it or carrying through with it.

Beauty salon open every 2 weeks, how do you like them there onions? MANY MANY flies. I cannot quite figure out how they get in, but they were there. Not too understaffed. Saw residents sharing crackers. The back wing where the worst residents are kept was a grimy smelly mess. One resident who came from VA hospital was planning on getting out as soon as he gained more control. He was the gossip of the home.

In-service program is perfect--on paper that is. In-service is on Tuesday at 10:00 A.M. Not one staff member knows anything about it.

There was evidence of concern among residents for one another i.e. pushing wheelchair and assisting with ambulation.

Beauty shop was very busy--short of help, very rushed.

This home had a warm atmosphere produced by attractice decor. Residents appeared to be generally cleaned up in the A.M. and gotten up.

However, although there were 2 activity directors, I didn't think their experience and background was appropriate, and they seemed to be providing little of the appropriate activities for this age group. There was no rehabilitation program and staff was so short that good rehabilitation techniques could hardly be utilized.

Things were quieter this time around. According to staff meeting notes the use of the loud speaker was to be discontinued, but later it was discovered the "residents missed the noise."

The staff was friendly and did not hesitate to cooperate with the interviewer and questions regarding the residents also the Director of Nursing.

The "chapel" continues to be the general storage area and never used as a chapel.

Most of the residents who were up and about were dressed well. Also, they (the director of nursing and administrator) had forgotten we were going to be there so nothing was staged.

Everyone here seems to be about their "own work." With little real care or concern for the residents.

Facility No. 2

I'd feel very comfortable having one of my family here. I feel their needs--medical and social-- would be met. They have a kiln. Have a resident kitchen that can be used with supervision. Have laundry facilities, a beauty shop open every day, a beautiful chapel and a carpeted dining room. So large it took about an hour just for the tour.

Doctor seems not to see residents very often. Few charts had enough current orders. I was quite impressed with the way the kitchen was run and the food looked delightful; however, residents in one unit complained that the food was always cold by the time they got it. Also felt that this home could have been a little more "restorative nursing minded" with such beautiful facilities. I'm sure the residents got especially good nursing care and are quite happy here. I felt that there was a big difference between the way the sheltered care area would be rated and the way the skilled care area was rated.

I realize much of this atmosphere is an intensification of a specific definition of living out one's life with dignity. But the whole place is so cold and so formal. God here is such an aloof God!

Staff very upset that I will be talking to residents and staff. The Director of Nursing kept repeating the letter which said we would only be walking around and staff would not be involved in any way. Used only the census board for random sampling.

Home seems cleaner than before. Decorating has improved. Lounges are being remodeled nicely but slowly. Outside contractor is doing the housekeeping. One gentleman commented that there were more men, "But they don't associate with us common people." Much evidence of 2 separate facilities present.

Residents seem very relaxed--happy. More working together--socializing noted. In the other area staff "seem" kinder more gentle. More TLC shown, more patience.

In the more formal atmosphere the patients were very demanding and seem to treat staff as servants. Staff seems to respond by only doing what they must for them. No sign of affection or real concern for the patients shown. Many private duty people. No rehab techniques observed on units (ROM are supposed to be part of morning routine - not seen). No encouragement of ADL or walking. People were more encouraged to sit than walk.

Staff seem relaxed and unhurried and taking their time. All very cooperative (except in nursing office). Activities department seems short of staff, but many volunteers. They seem to rely on them for most of programs. At a birthday party for residents each celebrant gets a bouquet of fresh flowers.

I noted in the folders that they do evaluations on all nursing personnel. There are no signatures so I don't know if it is reviewed with them. Orientation check list is also completed--re-evaluated at end of 6 months of employment.

Because of size here nursing staff has little contact or awareness of individual residents, and contact is made only when there is a problem.

By only doing one section before the other I don't feel you get a true picture of home. One is an older building with a warmth and lived-in look. Where the ladies take pride in their rooms--"small, but mine." Plenty of activities for those wishing to participate.

What a layout. This is what a home should be. Residents can move from sheltered to intermediate to intensive, all by tunnels. They seem to encourage them to stay at their highest level. Have kiln. Residents can use kitchen with supervision. There is a washer and dryer available for residents. The dining room in the sheltered care area is just beautiful, carpeted, solarium in center. Can't remember exactly, but you do pay dearly to live here. More for the wealthy. Staff was very cooperative. Yards large and very well kept.

Facility No. 3

Everyone--housekeeping, etc.-- is involved in rehab. This is a place that is clean, pleasingly attrative, and has no odors. Attitude

of staff is, "Sorry we can't do more for residents." One LPN said, "I'm really proud to be able to work here."

Regarding complexity of building it is hard to find one's way around. The dietary fellows had long hair and no caps.

Saw a housekeeping member assisting resident with ambulation.

There was a shortage of nursing staff this day.

A really well run place. Have continental breakfast for about 30 patients. Saw Aides move patients sitting in wheelchairs and beds. This place has boutique. All patients up and dressed with only one really confined and she's in wheelchair 2 times a day. We saw about 10 patients going through employee dining room. Questioned about this and then said employees resented at first, now accept it. It's part of the rehab program. They also have cooking lessons and think they are held once a week."

I based many of my answers on the number of staff who seemed to be more adequate than some homes and were seen working with patients at more than just dressing, feeding, etc.

Very impressive facility.

Appears to be a well run institution. They have continental breakfast. (This may not be important to many residents, but it would be to me, just knowing that I did not have to be there at 7:30 A.M.) Residents allowed to eat in employee dining room. Everyone up and dressed. Some odors but good care. Saw aides move residents sitting in wheelchairs and beds. They told me they did this every 2 hours. Have boutique. All patients up and dressed. Only 1 confined to bed and she's in a wheelchair 2 times a day. About 10 patients per employee in dining room. Cooking lessons once a week for residents. Overall, quite clean compared to what we have seen.

Construction is still going on and this providing many of the men something to sit and watch. There is a feeling of bustle and some clutter, but it is not objectionable. Patient rooms are "messy" but not dirty. Aides seem to spend more time with resident than his possessions. Much personnel contact apparent between staff and residents and some obvious affection. Ward clerk (though very busy) had brought a very confused lady in to sit beside her while she continued her work and was reassuring and talking with her in her native language. Also 2 nurse aides had grouped about 20 in the central hall and were playing records for them encouraging them to sing and several to dance. An atmosphere of genuine caring seemed to prevail. A feeling of concern was apparent on one unit with a supply of new dresses. Two aides were busy helping the confused ladies try on and select the most appropriate style for each.

Patient rooms seem to lack a personal touch, however there were very few personal "things" apparent.

Very complex building easy to be confused here and end up in wrong area.

Some very young (20's) with severe physical handicaps mixed fairly well with the older people. Much effort is being made to keep them involved. Many had entered the county fair. One of my interviewees had won a blue ribbon. More effort is being put forth to return them to the community. When we were here last they were practicing self-care, care of the apartment, cooking. Four have now been moved into a sheltered care unit. It is felt that care structure here will soon be changing to no skilled care more intermediate and sheltered care with greater emphasis on rehab-restorative and return to community life. Today their bus took group shopping. In-service had a man from Dept. of Reg. & Ed. discussing drug control medications, etc.

On the second floor lunch was not served till almost 1 P.M. and trays were still being picked up at 2 P.M.

This place was again going full steam when we arrived. The PT and activities departments were crowded and busy. One of the few homes where a good number of men were participating in the activities. One was making especially attractive wreaths.

There was a young man who had left the home (activities department employee) and gone to California. He had been so popular with the residents they got together and wrote him a letter and asked him back. He was very kind and loving toward all the residents he came in contact with. This characterizes the home although large, there still is that very warm and personal feeling due to people like him.

Food was good. The residents who are able can go to employees dining room and eat (there they get a choice.) This was accepted well by the staff.

Even on the especially "gorky" units the residents were clean and appeared well cared for.

If I ever recommended a home, this is the one which offers the most in every respect.

Facility No. 4

Lovely place in a small town. Have a full-time chaplain, library, shuffleboard, exercise class and newsletter. About 10 years old, have patio and kiln, residents' review. Wonderful staff cooperation. Staff seemed more than sufficient, I have not said that before. Large yards, wings with flowers in between. Aides worked there 10 years, director of nursing 5 years, and administrator 13 years. These things say that it must be a good place to work. Certainly beats the 30 day aides at the other places who were doing charting. The place is spotless, shiny floors,

well maintained. There is a library. Residents mainly have their own physician. Because of the resident care level, there is no rehab. It bothered me filling out my observations to rate them zero on this. A very large beauty shop. Chapel is held every morning. Administrators were the best that we have worked with. However, I felt that we have had excellent cooperation wherever we went. A great deal of love and concern between staff and resident is shown. The administrator gave us a "pink ticket" for lunch and sat with us at same. He has an analytical mind, hates the State and all their foolish inspections.

About an hour before we left a little lady fell in the hall. No one saw her fall. Staff was still around at 4:45 when I left, and she was just leaving in an ambulance. Such TLC shown from housekeeping up to the director of nursing and administrator. For sure, I do not want to spend my declining years in an urban area. I was raised in a rural area where people really count.

The sheltered care was the best I've seen. Some of the residents living in this section would have been placed in the intermediate care section in other homes. The rehabilitation was not as good here as it could have been. Again, it may have been because residents don't need it. Average male is 85 years old. Average female is 85-87 years old. About an hour before we left a little lady fell and apparently had a fracture. I do hope and pray she's ok. I saw lots of empathy and concern from the staff, above and beyond medical responsibility.

Strong Points

(1) Administrator compassionate and understanding man with excellent conception of needs of oldsters.

(2) Church run and therefore more services available for less money.

(3) Program and accommodations for the Sheltered Care residents is ideal and their independence is encouraged and promoted more than any other place I've seen.

(4) Facility clean and beautiful (also private rooms).

(5) Food better than many places.

Weak Points

(1) I didn't feel their rehabilitation and restorative program or their care of the intermediate residents measured up to what they were able to provide for the sheltered residents.

(2) Doctors were not particularly interested in rehabilitation and restorative nursing

I would rate this place as excellent for a sheltered care resident and fair for an intermediate and skilled resident.

Attractive relaxed atmosphere. Administrator and assistant gone to meetings.

Much personal contact observed by all levels of staff--housekeepers, secretaries, etc. Much resident personal involvement in "their" home. Seem very proud of home; anxious to show you its good points. More activity here than at others. Going "up town" to shop.

Craft room busy with projects and plans. Chapel service is held each morning in the chapel with visiting clergy. Most residents seem to know each other seemed to have lived in area for a long time.

The new addition has been completed, no new resident rooms, but a large light day room for use of the infirmary residents, and they are slowly adding furniture as the budget will allow.

As many as possible are fed on trays in this area. As they are dressed for the day, the aides bring them into this area placing them into groups. (This could be a bad situation, if not handled well.)

They are preparing a remotivation program. Acting Director has attended week seminar and is acquiring materials preparing to start soon.

The exercise program is going great. Excellent participation. Excellent staff ratio--many long time employees who have known the residents for many years.

Another church related home with enthusiastic staff showing lots of care, love, and concern. Drafted an RN from a coronary care unit because she was so impressed with what was going on there.

Very clean, very comfortable physical plant. Three levels of care with lots of freedom for sheltered care residents. Some complaints about food voiced due to "meat shortage."

Rehab nurse (also inservice director) seemed to be a very rigid person. Held regular inservice which seemed very thorough and kept elaborate records.

Good evidence of volunteer groups. The boy scouts in to set up pins for bowling game in afternoon.

Facility No. 5

There were many areas where the "ammonia" odor from cleaning was overpowering. There was no evidence of restorative care. The physical plant and furnishings were new and attractive. However housekeeping needed to do more.

From procedure books etc. this should have been an ideal facility. In reality and application it fell short as far as resident treatment, TLC, etc. The place looked good where it showed--stairs between floors

were not tiled, plain concrete and rather dirty.

The home was very cold. Good policies and plans on paper but little evidence of implementing restorative, rehabilitation techniques or activity programs. Seemed very short staffed.

Not very impressed. The P.M. shift seemed to care more for residents, personally than the day shift. Back stairs plain concrete and dirty. According to their procedure's manual this should have been a top residence but it certainly was not. The administration talks a good story and "we are so short of help." No chapel at all. They stated they paint every 3 weeks. Right over the dirt??

Only slight changes since last year--the strong smell of urine greets you at the door and permeates the whole building. They are now trying to mask the odor by using ammonia for cleaning. The administrators made their presence known--each made rounds at various times--supervising the housekeeping team. Doing great job in the middle of floors, lovely wax shine and buffed, beautiful. But I swear the same dirt is still there from last year at the baseboards--must be 1/2" thick in the bedrooms.

Nursing staff still seem pressed and were still making beds at 2 P.M. They seem more relaxed than last year. They have now apparently changed bath schedule as all baths are now given at night. Four aides are expected to give 60 baths or showers. Several were observed giving extra kind attention. No evidence of ADL encouragement. No evidence of rehab or restorative nursing being done. Charts shown ROM and AROM daily, but no evidence of its being done. No actual evidence of B&B though there are orders. Observed no one doing gait training, positioning, transferring. No gait belts observed.

The large tables have been removed from lounges, and all residents are on trays. First floor is now trying to bring some to TV room to eat under supervision. Do not use the basement door at all now. Only 2-3 ever observed in TV lounges. Most are still found sitting in chairs in hall and in rows around the nursing station.

Activity department still rates high. Four on staff seem to be trying hard to involve as many as possible. Exercise program daily on floors and about 30 in a discussion group. About 40 for morning coffee and donuts. They seem to be having better participation, and residents do seem more involved.

Nursing has gone to "Unit System" for drugs. This started about May. Staff pleased at having better drug control with less drug errors. Have added 1 full-time rehab in-service person. The in-service on paper looks good. The orderly I interviewed goes to another facility for Certification Training.

They appear to be having team conference on each floor weekly, and they discuss 5 patients on the floor. Residents have a "general unkempt appearance" most seem dirty and disheveled. No evidence of any discharge planning. Long-term, short-term goals are not specific on kardex, just ideal "phrases."

Many visitors were observed during the day, and it seemed like some have family who show some concern.

Fourth floor appears to have many Mental Health discharges, for example a compulsive who walks constantly around building. Catatonics in various statue position--man squatting on floor for at least 2 hours.

Director of Nursing talks very knowledgeably.

Building itself well planned. Use of color is ideal, and the telephones and pictures are all low.

Something seems to happen between the talked theory and what you see is really being done for these people.

Food was cold. One tray had 2 tbs. noddle soup (menu said split pea), cottage cheese fruit plate/sour cream, sliced beets, vanilla pudding, bread. Tray had cold noddle soup, leaf of lettuce with 1 slice tomato, scoop of cottage cheese/scoop of sour cream, 1 slice of bread and margarine and coffee.

Lunch trays were removed at 2 P.M. Supper trays were on third floor at 4 P.M.

What was good about the facility? The Physical plant. It was decorated nicely and tastefully furnished except sunroom. The staff was accommodating.

What was bad? Nursing care overall was poor. Not enough staff for really good care. No evidence of rehab. Housekeeping poor with rooms dirty and not dusted or picked up well. Smelly.

The residents lined up in hall with little interaction between residents and/or staff. The staff "lorded over" residents.

Incident characterizing this place in my mind was this: After arriving here I was told to go to the nursing office. There were about 4 people "interrogating" an older woman about her bank, her money and late payment for her stay there. The director of nursing said, "If you don't pay, I won't get my salary." This occurred in front of myself and several other on-lookers. Quite humiliating and unkind of their staff!

Again it was very dirty and smelly. No changes in that respect.

Food was not too appealing--1 large portion of sour cream with cottage cheese, cold soup (noodle). Trays waited for long time in kitchen already prepared before being taken to the residents.

Activity people seemed to be trying. There was a new director of activities who was enthusiastic to try new things. Had gone to an Activity Director's Conference and just received her certificate.

The staff by and large was indifferent to residents. Residents looked tacky and unkempt. Again no signs of rehab or good patient care.

Facility No. 6

An old home which bought by a group are in process of "cleaning it up." Kitchen had diabetic 1,800 calorie diet posted and 3 week menu cycle. Under 50% eat in dining room. Most 2 bedrooms with bath. Lounges on each floor--also a screened in area. There are mostly public aid residents. Have activities director and 2 assistants. It's a very large sunny solarium. Talked to director and the assistant, and they didn't seem interested in really working with residents. Had feeling they were just "there" collecting salary and it didn't matter to them or staff if they did anything or not. A new administrator and director of nurses since July. They are in process of improving but have a long pull ahead. Twelve staff for this large facility. Residents' clothing done here but all linens sent out. Residents quite dirty, smelly. The orderly is allowed to work 2 shifts. There are many male residents. Many new staff and residents. Saw D-Con for mice in staff bathroom. Felt love for residents by the staff especially on first floor.

This home was dirty, stark and institution-like. They were very short staffed. They had given little or no rehabilitation or restorative nursing care. Residents were dirty.

Director of food services says she has worked here for 22 years. Building reopened 3/5/72. It is cleaner than 1 year ago; floors are shining, clean walls. Believe they are using a cleaning maintenance service. One aide I talked to has been here 2 months, has no experience other than caring for grandmother and has had no orientation as an aide. Three young aides were responsible for care of 42 residents. One resident was sliding out of wheelchair, down to shoulder bones on seat, draw sheet almost around neck. Aide attempted to pull her up and made 2 very unsuccessful attempts. Obviously did not know how to start. Resident had no underwear--just a thin dress. She was sitting all day on bare wheelchair.

This building has much potential. Many areas that could be utilized for programs.. Most day rooms and lounge areas of any building we have been in. Odors are much better controlled. With a couple of highly motivated housekeeping staff this building could be saved.

Now there is no communication. A lady left for the hospital by ambulance. All the nursing staff knew, and it was written in their log book but nothing on chart and no order. Later they realized she was admitted to hospital and would not be back. Another man arrived by ambulance, and no one seemed to know he was coming or what to do with him? Also no orders. When I left they were attempting to find the doctor. A xerox copy of standing admitting orders was on the chart and doctor's signature was xeroxed also.

Majority of residents were still just sitting in the lounges. We ate here and had meat loaf which was just swimming in fat.

A very large facility with only partial capacity. A very young administrator.

A new and not too good activities director.

Lots of room for potential as far as programs.

Have cleaning contract. Thus clean floors but furniture is not as good as it could be.

Generally smelly residents. No rehab seen.

Facility No. 7

They have book reviews here. Have a special kitchen here. Activities director stated they have sensory retraining and explained it to me, "Who am I? Where am I? Touch stone, wood, fur, etc." The residents make quilts. One was raffled recently and they made $100. Part of it was used to buy a bean bag chair for a resident who cannot sit, talk or speak. I talked to this resident and she responded by smiling. Have cooking class once a week. Really had a "different" day.

I felt that this home was particularly rehabilitation and restorative nursing minded. They did a good job of orienting and training aides in restorative nursing, and the activity department seemed good. Doctor visited regularly and this is the first home in which doctor had frequently mentioned rehabilitation in his orders. The residents were well cared for and nearly all up and dressed, but many seemed to be just sitting. Atmosphere seemed very sterile.

Outside well maintained lobby clean. "Cold" reception from front office almost to the point of rudeness. Feeling of resentment apparent. Many men sitting in first floor lounge watch TV--seem more "alert" and active.

Involved activity personnel. Exhibit great patience in working with people. Efforts made to make them feel individual. Had a literary program using moving outside speaker--talking about book; about 40 people came.

Remotivation program actually being done--2 times a week only, but all other techniques are being used. Today had fresh fruit.

Concern is shown for education of staff here. The facility is used by the Board of Education for certifying NA program. Four aides from here are given time to attend. Home pays the 5 RN's and pays salary for the $3\frac{1}{2}$ hour 2 times a week they attend. Director of nursing seems to try hard to improve the conditions of the residents.

Home has several severely retarded. Care is better than they would be getting at a state hospital.

Food poorly covered while in transit. Trays wait a long time before being passed out. Plates of macaroni and cheese with spinach were sent up--no tray covers apparent.

This was the first place that I noted sensory re-training. It is to stimulate the senses, feel, touch, and smell. The day we were there they had a speaker from the FBI. I wanted to listen to him but on with the work. Was told for every 30 beds, there must be a private room. Many of their patients come from State Hospitals. The activity director would like to promote the activity director's association which now has 50 members.

Don't know who the decorator was but she certainly liked wild colors. I saw an aide dressing a resident's legs as I was walking down the hall. There were ace bandages from the knees to the ankles. She must have spent 20 minutes doing it. I passed her again in the hall and made some comment about them. She said she dresses the ulcerated legs every day. I said something to the effect that it must be a messy job. Her comment was that it has to be done and it makes you feel good when you see improvement in the legs. I thought that was a very good comment.

The activities director was very cooperative. The residents had made a quilt, and they raffled it and used the proceeds to buy a bean bag chair for a resident about 25 or 30 years old. She is a redhead with the beautiful white skin that some have and deep blue eyes. I interviewed a resident in her room. This little lady could not speak, her legs were about 1½ inches in diameter, arms in fetal position. She was fully dressed and sitting in her bean bag chair. I found that if you told her to smile, she would.

The R.N. gave me a copy of "Good Daily Charting and Suggestions" which I wish would be used by all facilities. It covers all the pertinent information that should be on the charts. She also gave a copy of "Employee Questionnaire" to me which they have completed after they have worked there for a while. It has many general questions, then specific questions about in-service meetings, suggestions to improve work conditions. What talents do you have, special skills? The Director of Nursing stated she had a girl from Cuba, I think, who played the piano and she is now using her musical talents with the residents. She stated it really gave the employee a lift and was good public relations for the staff. All in all, this was a pretty nice place. We worked in the chapel which looked like it had not been used for 6 months, cluttered with boxes, extra lamps, etc.

A rather dirty place with rather dirty residents that were being given only custodial care as far as I could see.

The aides were attending NA classes with other nursing home aides which they took lots of pride in. The home paid them to attend. This was offered through the Board of Education. I could not see that it benefited the residents as far as rehab went.

The activities department was excellent. They had college occupational therapy majors coming in for their practical field work. They had a good remotivation program as well as excellent activities program. It was one of the best programs in proprietary homes that I saw to date.

Facility No. 8

I left the facility tonight knowing that residents were really getting good care. It was built about 4 years ago by the administrator's relative. There were no odors. All furnishings in excellent condition. I was invited to eat in sheltered care dining room with residents. Had a pleasant conversation at our table. One said she was the first resident in section, a man said he was the first. He pulled out a slip of paper, and he was wrong. She'd moved in first. Residents are served on prefilled plates and may have seconds if they desire. They have a pharmacy which is stocked by the pharmacist who comes in twice a month to fill residents prescriptions. Director of nurses said she does not have key.

Physically beautiful nursing home. Main weakness--food service. Food somewhat starchy. Bland colors in lunch and dinner. However, residents seemed to like food. Stated they got egg in the A.M. For lunch--chicken noodle casserole, rolls, spinach, cake, applesauce. For dinner--custard, corned beef hash, bread, fruit. Residents were all very content. Most obvious characteristic was a real warmth and concern for residents by staff even the administrators themselves. Much activity. Entire home and residents clean and well cared for. Many visitors. Many residents were friends of staff or each other. Three of my 4 residents were in the Retirement Center and therefore did not require much nursing care. The fourth was a new admission with no orders, cardex, etc.

Large type books around for residents.

Large type books for reading. Good morale among staff. Even with residents accidents (incontinence) good humor. Absent administrator. Director of Nursing liked and admired. Didn't hesitate to verbalize contributions of nursing personnel.

Place very clean, flowered sheets colorfully decorated, more tasteful than most.

Good will among residents. Helpful with each other.

Large kardex for all departments to contribute to OT-PT, laundry, housekeeping, kitchen all included.

Very positive changes are apparent. The new director of nursing is older nurse, who used excellent interpersonal technique to win staff. Staff today very relaxed with each other and residents, much patient contact. Concern is shown at all levels of staff. Whole home atmosphere is relaxed.

The administrator was here very briefly in A.M. His mother, a very warm giving person, is helping in the activities department. The tension and staff hostility that was so obvious last year when there was an acting director of nursing is gone. People more active and are moving about more. Large groups are not just sitting in front lounge. Activity department now is using lounge at end of one corridor. Another lounge is being used for crafts. There is a sale to be held tomorrow. A movie was shown in one building and then again in another in A.M. on State of Nigeria.

Cleanliness of building was great. Great care is taken to keep the floors clean.

An LPN is doing rehab full time and has 2 aides assigned full time. These 3 are responsible for the restorative care being done. Seem to be doing a good job. ADL sheets are up to date. There is a medical director though no written orders were found for rehab. No medicine for anybody on Sunday unless emergency or for pain. The medical director believes too much medicine is given to older people. Body needs a rest. Sunday is a time for kidneys to expel the drugs.

P.M. shift was short 2 girls called in 2 day shift volunteers to stay till 4:30. Charge nurse stayed till 4:30 doing her charts because she had been so busy all day.

We were welcomed with open arms here. The director of nurses had only been there since February. You could look across the street to an old farm house well kept with horses and cattle in the yard. There was a cornfield in the rear which was to be made into a park next year with a resident-help garden. What a beautiful spot for the residents and many of them are retired farmers and wives. We ate with the residents 3 at a table which was in the new section, very nice, nice carpeting, drapes. It was served on a plate and you could go back for seconds if you wished. After we finished eating the director of nurses met us and the town prostitute who is now quite crippled with arthritis played honky-tonk pieces. As an old music lover her timing, phrasing, was perfect. You could tell she loved her music. She just kept going from one old song to another. The piano was between the lounge and the dining room. I saw about 5 residents in the lounge who were thoroughly enjoying the music including an old man. Perhaps he was one of her patrons???? He did not bat an eyelash but his feet kept perfect time.

A new wing was opened for sheltered care in March of this year. The sheltered care dining room was carpeted. They serve wine 3 times a week at lunch. My thought was, to retired farmers?? Since they are so close to a State Hospital no narcotics are kept in the place. There is a doctor in 5 days a week for ½ day with regular doctors wing on the end. He is also consultant to another nursing home.

Late in the day the administrator came in. Very interested in receiving a report on last year and this year's facility review. A pharmacist takes care of the medications. He has a bulk facility available only to him???? He came out while we were there. Yesterday many residents took a bus trip (provided by facility) through the country. They had lunch at a restaurant which the residents paid for. The activities director seemed to be doing a good job with yarn flowers. I would have bought some. Good staff cooperation.

Facility No. 9

Observations throughout day were that this a real "baddy" as far as I'm concerned. Director of nurses didn't impress me as a real nurse,

just someone making a buck. Facility is well maintained. Buzzers that ring at nursing station when any exit door is opened. My one half hour interview said many of the patients came as mental health placements. There were no social records and poorly kept charts. The stairwells were waxed. The chapel is only an end of the hall, a make-shift. During tour Medicaid and Medicare levels of care were stressed.

Most of rooms here were semi-private with a common bathroom for 2 rooms. Exit doors has buzzer so when it is opened it rings at the nursing station. They used unit dosage here. Have a chapel consisting of folding chairs in a sun room.

There were many new employees here. I did not notice much TLC. Charts were very poorly kept. Generally quite clean but more attention should be given to residents. Stairs were well waxed. Activity directors room was locked. Later I saw her painting residents' furniture but the residents were with her. Medicare and Medicaid was stressed on tour. It must be a moneymaker for someone, certainly the residents don't get care. I wouldn't bring my dog with fleas here; she might pick up something else. Director of nurses did not impress me as a nurse, just someone making money.

Outside well done, far enough from road to eliminate road noise. Yard neat and attractive.

Carpeting in residents rooms has all been replaced with vinyl tile.

Activity department had 2 women who only seemed to be providing for their own "activities." Residents were noticeably on their own. No craft area at all. What had been a chapel looked like a catch-all. This was pointed out as the activity room.

Physical set-up may be efficient, but the floor plan and room numbering system may be confusing to the older person. It was to me.

Staff is friendly and courteous, but little time to spend in interaction. Assignments are heavy. The RN's and LPN were observed sitting at the desk most of day - charting. (They do pass the medications.) They were not seen interacting with residents.

There is an on-going PT department with 2 girls and a RPT and assistant working 5 mornings a week. Room has full equipment, whirlpool, exercise table, wheel pulleys.

Actually saw aides assisting residents to walk (no gait belts--used poor techniques). But they have a daily list of residents they were to walk and appeared to do it. Also had a treatment list of residents who were to go to the bathroom q 2 hours. They seemed to be doing it.

There were not as many lining the walls in their chairs as usual. Some residents were sitting in the lounges. They are feeding more in groups in the second floor lounge areas--all who were out of bed were fed in one of the 2 areas.

Several heated discussions were observed by residents (friendly). Many visitors were observed during the day. No volunteers seen.

Activity for the day was a party at 2:30. This as far as I could tell consisted of the residents taking their assigned D.R. seats and the activity girl passed out paper cups of wine. They then returned to rooms.

The actual patient care was done by the aide. The RN sat at the desk, charted, and gossiped.

Food was attractively served. Fresh asparagus--probably the best we have seen so far. The residents complained about the food. In-service in the book was well presented, but aides I talked with did not know what it was all about. They do have high staff turnover.

The decor was warm and facility was very clean. Had a good housekeeping department. Some restorative care being done. Had PT Department.

They had a PT Department but not in active use. Staff shortage noted. There was in-service on paper, but not in reality. A severe staff shortage in nursing department. Residents calling for help but being overlooked.

Still many new employees. I noticed a little more TLC than before. Still couldn't give it more than a '2' on a 1-4 scale. New staff seemed to have more concern for residents. RN from Asia actually doing resident dressings. Director of nurses still is a money-maker. Never saw activities room open. OT was busy today. Nice equipment here. Do own laundry and residents. Only 2-3 draw sheets in linen closets.

This home is clean and modern and pretty well staffed. Chief shortcoming is restorative nursing care. I think that other than that they give good care.

Facility No. 10

Had a lump in my stomach from the time I got there till I left. Poor patients. Some hadn't had a bath (those confined to bed) when the afternoon shift came on.

This place was horrible. Six untrained aides for all those patients. Many complained of hunger. I'm sure they can't all get fed all their meals with this little help on. Horrible odor. One LPN. At least one half of the patients spent day in bed. I feel a need to report them or something!

Really had an opportunity to check out what I wanted and not a gut response. In our previous visit, I just wanted to walk out as soon as I came in. Am I getting used to it all, or was it really cleaned up? I think so. The activities director still works so very hard with residents. There are many new staff who do not know residents.

My impressions today are much more favorable than on my last visit. Food service seems to be strongest point. More staff today. Weakest area is rehabilitative and restorative nursing activities. Residents appeared cleaner. They seem to have a heavy load of residents requiring skilled care and more spend the day in bed than should. Home seemed cold to me. Residents who were bathing and/or had wet heads were cold. Very little in-service. They do have an activity director but she is busy doing other jobs. Many residents were not dressed but of course more are "skilled care" here than in most homes.

Good activities director. She was especially interested in residents. The nursing staff was young and cooperative with one another. If one finished she would help another. Food seemed appealing to patients. This is a smaller residence and promoted more friendliness in staff and residents.

There was lack of rehab or restorative nursing procedures and no evidence of formal training for new NA staff and no current in-service program. Charts are not kept up well.

Aides worried about getting residents up before lunch regardless. All charted together leaving residents alone for a long time. This is a very time regimented place. No restorative nursing seen.

For inservice there was a record to July, but no record after that. Most nursing aides were new and could use some in-service.

The facility is fairly new looking with artificial flower boxes decorating the outside and a small patio with benches to one side. I saw only 2 men sitting outside on them. Two did some work around building. A new addition is to go up soon.

The activities staff were very friendly and the initial tour was done by the activity director. She is a very warm outgoing person. Observed her feeding lunch and supper trays, setting hair, applying make-up, hugging many, touching many. She appeared to be very loved by the residents.

There are many men in this home. All were finally dressed in flannel shirts, undershirts, and washable pants by noon. Many were not shaved however and many had bad breath.

The average assignment was 10 patients. One team has same assignment for one week and sometime during the week each patient will get a bath.

Most of staff was very young; many were new. There is no formal orientation program. A new girl is assigned to work with longest employed aide who will show her what to do.

Observed that the aides do all the patient care. Director of nursing charted and worked with doctor while the other RN passed medications; neither were ever observed interacting with residents.

Charting methods should be up-dated. Charting is routine and there is little evidence of psychosocial patient care concepts.

Only a few residents are taken to dining room for meals; most are fed out in halls.

The halls are very congested; more than half of the residents are in wheelchairs. Very few were ambulatory (don't think I saw but 2 walkers). Halls so crowded that it is difficult to get around. There is always a feeling of congestion, clutter.

Meals are delivered to where patient happens to be. Cook seems outstanding as she had baked from "scratch" apple slices for all residents; she uses very few convenience foods; cooks everything from "scratch" and seemed to enjoy her job. Trays were attractively served, but could easily become cold if staff didn't serve immediately.

The administrator was over anxious. Made efforts to impress us. Made several different approaches to see tools. Many inquiring about what we were asking the staff and residents.

Met the medical director while interviewing. He stated it was about time inspectors talked to residents and saw what was really going on and not just sit and go over records picking over little items he might have forgot. (He is an older man and seems well liked by residents.) I didn't tell him he had not ordered a diet for a patient who was admitted in July. (They were feeding her anyway.)

Director of nursing was suppposed to have taken the rehab course but no evidence anywhere that she did. No evidence staff knew anything about rehab techniques--ROM, ADL, B&B, positioning, etc.

Activities director was observed doing gait training and assisting residents in learning to walk. (No gait belt observed.)

Very little interaction among residents. The activities director brought seven to day room and did a sensory stimulation session. After it was over, they all still just sat there for more than an hour, no one moving, no one talking.

Conditions seem crowded. They are aware of this and most of the building is to be for services--activity room, P.T. room, O.T. room, dining area after the new addition is built.

Only one man was observed moping floors. I saw no one I could identify as housekeeping. One lady does laundry for entire home, one man does maintenance.

Most rooms have 3 beds and seem crowded (really would be just the right size for 2.) This is probably why once they are up and dressed they spend the rest of their time in the halls.

With so many men they should have an orderly or at least a barber!

Regarding care after I had finished resident interview of man at 11:30 (His breakfast was still spilled in large amounts on his chest and in his beard. At first I thought he had had an emesis.) The aid who has been there the longest and is training the others came in (while I'm sitting at the end of bed) and proceeded to strip him and left him nude for 15 minutes while she went for water, towels, clothes, etc. I use this as an example of the complete lack of concern for the old man's dignity or his feelings of worth. I had asked her, if he had any decubitis or infected skin area and she said "Oh, no." When she turned him to side his back was a mass of red, open draining areas over most of back. When I left at 5:00 P.M. he still had parts of his breakfast stuck in his beard.

In most respects life here would be on par with Facility No. 5.

The nursing staff is only concerned with "tasks" and not the person inside.

Activity people are bringing the only "extra" into their days.

No evidence of discharge planning although care has been taken to have ECF forms correctly filled out. The U.R. minutes said the right things.

In-service records show they are held monthly for nursing--records were very correct. (Too correct! No staff member I asked had been to any.) They have several on VA contract, but they look like "Madison Avenue bums." I felt that some of these could be salvaged if they could be given confidence that some one did care and they had some reason for trying. The CVA's are given no help in keeping what they have and are just vegetating.

Fire and evacuation plans are posted, but I was unable to interpret them and I wonder if the staff can?

A real special!! When we walked in the front door I wished I could have walked right out. The smell would kill you. They will be starting an addition shortly. Most of the space will be used for physical therapy, occupational therapy, and lounges which are sorely needed. Few residents eat in dining room. Last physical on employee was in 1969 unless the record was not complete. They have garbage pickup in front of the facility, and it was spilled over the parking lot. Many of the residents served osterized foods. (A quick way to feed them?) I noticed in their manual that the director of nurses was covered for $100,000 malpractice. I can see why. Twenty residents per aide means they are very short of staff. The aides spent the last ½ hour writing on charts. About the only thing good I could say is that the activity director really tries.

Facility No. 11

Rehabilitation is the highlight here. Building somewhat old. They are moving into a new structure in a couple of months. This one is in far from top condition. Mostly older patients 75 and up to 100, so activities geared to their requirements. No bed sores--only 3 bedpans, no catheter for 65 residents. We were with them for lunch and they said grace. Old cut glass vases, pitchers and large service of old dinnerware unlocked here in the dining room. This couldn't happen anywhere except in this place. In-service showed monthly sheets signed by those attending. Nothing on what was discussed. Left with a good feeling that residents were being cared for.

This very old home was poorly furnished but "homey," "comfortable," and clean. Most important they are well staffed and really care about residents. Restorative nursing techniques were evident everywhere. Activity director also did a great job. Food was good. Biggest problems really aren't as vital to residents' well being as the good nursing care and food. The problems are poor records and infrequent doctors' visits.

Most residents had private rooms which they especially enjoyed. It was a real home, a real feeling of warmth and care. Lots of staff and resident interaction; a real personal touch felt.

From the minute we walked into this older structure we heard REHAB. Everything seemed to revolve around rehab. What a beautiful job. All the things you read about in the rehab procedures were done here--foot pads, knee braces, people laying on their stomachs with their gorgeous bottoms up in the air and NO BED SORES or rotten flesh odors. Shortly they will be moving into a large building so little maintenance was done. Walls cracked, many potty chairs, and miserable old floors. But the people were up and they were as active as they could be. The administrator, a little farmer (I say this with reverance) and his wife run the place. He has had several heart attacks and will not be the administrator at the new facility. When you look out the windows, there is lots of green grass, chickens, and ducks. As I was interviewing a staff member, she excused herself so she could take a resident to the bathroom for B&B. Before lunch in a long hall on the second floor they had them singing "America" while she held up a flag that could have been made in the rehab department.

At lunch time all sat in an old room with oilcloth on the table including us. They said grace and then ate. Records and charts were a mess, lots of loose papers. Average age is from 75 and up and they are happy.

Very old badly deteriorated building although outside does not look bad. No maintenance has been done inside and plaster falling off walls. Residents must walk down narrow steep stairs to dining room to get to activity room. Everyone must go through staff bedroom then downstairs to basement.

A new building is being built and they expect to move in Spring.

Excellent rehab program during day with an LPN doing nice job. All staff participate in a group remotivation exercise program at 11:00 A.M. All who are able are brought into hall to exercise and sing and the staff joins in.

Food is excellent. Farm wives are cooking and food was exceptional.

Residents kept busy in A.M. and all left on their own in afternoon. Most were observed just sitting in their rooms.

A run down building that needs lots of fixing. They plan to move to a new building in Spring. There were several floors all used and yet really not enough designated lounge area. There was a good "exercise session" in morning including exercises, singing, waltzing, pledge of allegiance and a religious song.

There was an LPN who was designated the rehab nurse. She had a very good program going but seemed to be the only one ambulating residents. During the exercise session although all the nursing personnel joined in and assisted the residents so that as many as could took maximum part.

The residents had private rooms and really liked that. No one wanted to move to a new building with shared rooms.

The food was good--all residents seemed to enjoy their meals, too.

The administrator was just "serving time" till officially was to retire.

The director of nursing was very young and the LPN's were all just out of school.

No signs of in-service records. There was some orientation to patient ambulation and transfer shown.

One resident had a cousin staying with her overnight. There were signs of freedom and mood of peace.

Poor charts. Also, no progress notes or potential of residents noted. Doctor's visits were more routine than had been previously. The director of nursing stated doctor's visits had increased remarkably recently.

I feel the rehab nurse had the most going for the place. Without her it wouldn't have been much.

Staff seem to make the beds and straighten rooms in early P.M. They are doing good B&B but do not document it.

All documentation is poor. Charts were difficult to interpret. No nurses notes per se. They use a universal nursing note for all the disciplines. Activity people charting more than any. The rehab nurse was second.

Facility No. 12

There were two entirely different types of buildings. One was old and the other was a newer building. There was an especially warm and loving feeling of the staff toward the residents evidenced in their care and "listening to the residents"--even those who were confused.

The intermediate care is very much run like a hospital. It is very clean. Director of nursing has been here one year. Medical Director cares for 95% of residents. He sees residents 2 hours per week. They are to add a new addition without federal funds. They do all of their own in-service for RN, LPN, aides. Many must be fed, many incontinent, most or all in wheelchairs. Many extra nursing hours involved. Staff there does all they can to encourage and love the residents. No decubiti with these residents. Where is justice? Have standing orders. In sheltered care the residents are deemed responsible by staff and may keep oral and topical meds at bedside.

This was another lovely nursing home that had a good program of care for the sheltered care residents. There was a good feeling of caring about the residents. Their intermediate care wing was well staffed. Residents were clean and well cared for. Restorative nursing was high average. Charts were fair.

What I liked most was the feeling of really caring about the residents that was very evident. There was much physical contact. It was the most "home-like" place we have been. All the residents reflected this and no one could give me a thing they disliked about the place--no matter how I probed.

The layout was complex. I still wasn't straightened out by the time I left.

Even a senile man who was doing lots of talking that was all nonsense was kindly acknowledged.

Has very old section plus new section. A builder's program is planned for Spring with old buildings being torn down. The ladies living in this section are very upset as it is old and they have their own antiques around them and just seem to fit the setting. It all seemed so comfortable. I have to agree with them.

One lady insisted showing me her 3 room apartment with a small kitchen. She entertains small dinner parties with fabulous china that are rare antiques. She drives her small car all over area.

Place seems better staffed than any of the others and they seem relaxed and unhung and all getting along very well. Very relaxed, never rushing, a slow moving resident. Showed great patience. Residents seem well cared for with lots of TLC shown.

Facility No. 13

Both director of nurses and administrator were one year new to the home. I sensed among the staff that neither were liked too well. They had lots of trouble recruiting staff. No licensed nurse on noc shift.

Facility is attractive multiple wing facility. Had several lounges and chapel. Linen supply very good. The activities director had many activities. Bible school, stories, quizes, and hymn sing. Good ratio of staff to residents. Aides give meds. This is intermediate and sheltered care. Don't need B&B or decubiti routine. Director of nurses and administrator both cooperative and warm with us. Director of nurses said she has a real problem getting doctors in to see residents. She's been there I year and staff told me she's made some fine improvements. They're operating in black for the first time. They had just installed $5,000 fire doors. Very clean, good staff relationship. More like a hospital. I feel they're doing skilled care, but classify it as intermediate.

This home has only sheltered care and intermediate type residents and they appeared to be giving them excellent nursing care. Their activity program and level of activity in home seemed higher than average. Residents were especially well groomed. Biggest problem was poor charts which they are working on improving. Regarding nursing care side, the doctors disinterested in residents. Good in-service. Pretty well staffed. High average restorative nursing.

Physical plant, freedom of residents. It had the feeling of home to them and to me.

There seemed to be a feeling of tension between the administrator and director of nursing and the staff. I heard several unkind comments that I'm sure reflected the morale of the staff. She had difficulty getting staff. Both the administrator and the director of nursing were "sitting in our laps" all day.

Saw people playing cards and piano on own initiative.

There was a well kept yard, new and a well maintained building. Director of nursing has been here I year, also administrator I year.

Records: I've never saw any so bad; no system. Digitoxin given and no pulse rates. Diuretics given and no potassium supplement.

Building is good but confusing. Very quiet home, very little talking or activities. The mealtime was rather silent and all but 3 residents sat in the 2 dining rooms. Most in main dining room. Those who eat with difficulty eat in a smaller dining room.

In trying to decide what's wrong in what could be perfect home there doesn't seem to be any real affection shown to residents, any real concern for them. Attitude of all seems to be get the job done. It's where the bricks and mortar are pretty, but?

Facility No. 14

This home was licensed as an intermediate care home. They had excellent activities program and good in-service. Attitude toward behavior was permissive.

I can't quite decide how I feel about this place. It was opened less than a year ago. The owners have other shelter care facilities. I feel it's a money maker for the owner. Administrator was not there. The assistant administrator was mainly my contact. She was not very intelligent but knew where to find the information I needed. All of residents came from state facilities. Two weeks ago a resident got away and was killed nearby. A complaint had been registered by the local authorities and an official had come out to see if a cyclone fence was necessary. Mostly 3 beds to a room. Assistant administrator said they have 3 residents working in a laundry room and they're paid 12½¢ per hour. It gives them spending money. Activities director is very young and aloof. Seems to have good activities, Bible study, rhythm band, talking book, book review. In shop string beads, coloring, knitting. Women's charts have orders for douches 2 times a month, catherization for specimen. Have newly organized resident council. I had my first chart for oxygen administration. Aides are given 2 week training, then take test, if pass, can give meds. Visiting hours posted: 10 A.M. - 2:30 P.M. Part-time social worker once a week. No social record on charts. Have O.T. room. O.T. comes weekly. Use Listerine for mouth wash. No progress notes. Short staffed. Give Vitamin B12 regularly. I think it's an animal hospital. Money maker.

First impression was what a terrible place, but by the end of the day of observing realize it isn't really that bad.

Beautiful living room just as you enter and it is carpeted. Beautifully decorated a pair of swing iron gates block entrance to rest of building (reaction was it's to keep the children out of the front room and that is exactly what it was; at no time was anyone seen in that room).

Majority of residents spend day in "day room" or sitting at tables in the dining room talking.

Most active activities program I have observed. Four staff--they work very hard keeping the residents busy. A much enjoyed musical program in P.M. with more than 100 actively participating--singing, banging instruments, noisy but good.

Craft room so crowded, couldn't get another person in.

Many of residents here are mental health placements who were long time residents of state institutions. Here much effort is being given to treat as individuals and they are not as lost in the shuffle.

Aides here are given a 2 week training program by the director of nursing, and they pass the meds.

Doctor here writes the most comprehensive order I've seen. Must go right down the IDPA point count on orders i.e. (1) all female residents must have a douch every 2 months; (2) a cath. urine spec. every 2 months. All get B12 monthly. While we were there a LPN lined up 45 residents and gave all injections in less than an hour.

Most residents here can manage fairly well for themselves and just need supervision.

They have had several community incidents so are not well received by the local and have trouble with help and getting volunteers. But several churches are picking up some residents in their buses for Sunday services.

Women are all fed in central dining room first. Their tables are cleaned and the men are fed.

Activities director had a good program. Large well kept clean kitchen. Administrator appeared interested in improving condition. Good housekeeping department. Good in-service in which everyone is involved.

Nursing staff small. Front lounge off limits to residents. Noticed the cemetery nearby.

Facility No. 15

I think about the only good thing here is the activities department. She and her assistant really "try." In talking to her, I felt a real undercurrent of discontent. She's about ready to give up. About 6 residents were working on crafts. There were about 8 bottles of glue of which 3 were usable. She said she was so short of supplies and she felt it wasn't her job to buy them. I attended the resident council meeting. Residents complained of having to wake up at 5:00 A.M. She told them it was to be on a rotating basis. Many wanted to know how come their buzzer didn't work. Another had asked for siderails. The RN present said it was in the basement, and it wasn't her job to get it. The activity person has a grooming and deconfusion class daily. She also has a kitchen band. The podiatrist will not be coming anymore since public aid won't pay for it. This was the first time I'd found a podiatrist's notes on a chart.

This is a dingy home that manages to give some good care. The bedrooms are all very crowded and rather impersonal. The patients are reasonably clean and tended but there isn't all that much evidence of treatment program by the nursing staff per se. There is one NA assigned to patients and she does it all.

The administrator had a good collection of reading material on her desk--books relating to old age, long term care facilities and the like. The director of nursing seemed somewhat of a dictator. She ruled with an iron hand.

The size home is a comfortable one to get to know the staff and residents well--one thing in its favor.

As a whole the home was dirty and very smelly. Residents were not cared for with any dignity. Entering one room all the residents were naked to the waist without any nursing personnel to care for them in sight. One woman I interviewed was not repositioned as far as I could tell for the entire day. The personnel seemed very indifferent and showed little sign of wanting to learn or get involved. The OT consultant gave a range of motion demonstration and gait belt demonstration to a new LPN of one week's employment. Following what I thought was a good teaching session, the LPN confided that "ya never use that here," besides she "knew all that already."

Facility No. 16

It was small, very clean, friendly staff. There was one full-time RN acting as director of nursing--the only RN on the staff. She was kind and affectionate, seemingly proud of the home and the care rendered.

There was a feeling there, however, that the residents weren't all that glad to be there. Maybe I just wasn't "reading" the "vibes" right. One woman refused to be interviewed and the others were quite hesitant to cooperate. Possibly we were a real threat to the folks.

The food was certainly not spectacular--macaroni and cheese with jello and fruit.

The physical plant was quite institutional-like. Though the rooms were good sized. There were a number of couples living there.

Large sunny day room as you enter, well lit, open, activities area in front, patio doors to outside, redwood furniture, fish tank, green plants. Residents seem free to come and go as they wished.

Small place. Visiting hours are a 12 hour span to accommodate residents who live within 20 mile radius. They're licensed for intermediate care, but I feel they do skilled too. There was 1 incontinent, 1 catheter. They use brushing technique on anus every $\frac{1}{2}$ hour for incontinents and it works. Have beauty shop adjoining bath. Saw a 5 week menu. Saw an aide dusting bed springs. They count meds each shift. Costs low. Had good staff to residents ratio. Superior facility and care far superior to most facilities in the urban area.

I was very favorably impressed with this home. It was spotlessly clean, even smelled good, and they were giving excellent restorative nursing care to their residents. It was a very rewarding day. There was a real feeling of warmth and caring for the residents.

Facility No. 17

Staff has a pretty heavy load especially with 34 incontinent, no catheters. One resident I had came in with catheter. Saw no orders for removal of same. Administrators report said "no catheters." Do have a social service consultant. One of my residents was there since 1964, but saw no social service report on him. They have 1 activities director 5 days a week plus one assistant. The building was built in the 1950's; an addition in the 1960's. The policy manual states beauty shop and barber open 1 time a month. Day shift charts Monday and Saturday. P.M. shift charts Tuesday and Thursday. Night shift charts Wednesday, Friday, and Sunday. MOM and ASA are the standing orders. Activities director has sensory and senility group therapy. Nothing more was very impressive.

Private room is expensive. Dermassage and baby powder are charged to the patients.

The linen supply is by contract and there is a very good supply. All diapers are seconds. I had lumps all day as it was dirty and smelly.

This is a beautifully decorated home, and they have excellent records. They are short staffed. There is a bad odor as it is not very clean. No apparent rehab nursing here.

Physical plant was attractive. Nursing staff had all been there for many years. Some evidence of B&B training (first place I witnessed this). Activity program was good--seemed to appeal to a variety of residents.

The administrator seemed concerned about the physical treatment and the cleanliness of residents. No reference ever to rehab or restorative care.

Didn't hesitate to gossip about residents or their families with idiosyncracies.

Difficult to put finger on outside appearances of very attractive home. Care has been taken as to the use of color and with the furnishings, but the beds need to be oiled as they are very difficult to crank.

Most of the activities of the home take place in old section, and residents spend most of their day there. Two activity people attempt to occupy them. A good sensitivity group was held for 4 residents. Other persons worked with bright colored shapes and the staff had them arranging them. Later patients colored placemats.

A quiet home, sounds of music, every day living type noises, but overall relaxed. Staff appear relaxed. All seem to have been here long time and they work well together to assist each other. But the staff still seems superficial, no real involvement, no affection was shown; job was done and that's it. They are gentle and patient with residents, and they took the time to allow resident to do as much as he could. ADL was being carried out.

B&B was actually being done and staff knew what it was all about.

Facility No. 18

No tray table here and many are eating by sitting on bed holding trays in their laps. Very few overbed tables. Many beds are the old very high beds with no step stools.

Staff is friendly, relaxed, seem to take their time with residents much touching, close contact. Treat residents with kindness. Saw good rehab; staff getting residents out of wheelchairs to work them. Had 20 on B&B training?

Food is served on open trays with no covers. Food looked good; Southern fried chicken which residents seemed to enjoy very much.

Although the place was not too clean, minimum furnishings, etc. I felt a real warmth between staff and residents. The residents seemed content and happy even though they mainly just "sat" or walked from room to lounge which was just a part of a hall with a variety of chairs, end tables and lamps which were not lit. The residents seemed to care for each other emotionally. To get to the second floor you had to go through a 4 bed ward to a stairwell. There was a fireplace in the lounge on the second floor, which I'd not seen in a facility before.

This home was dreary, dark, drab, and dirty. There were few things to make it homey. There were few pictures on the walls. All furnishings were repainted pale colors. One resident who begged me to help him was laying dressed in bed and covered with a sheet. He complained of his back hurting, and I took a look and he had several bedsores on coccyx area. The noon meal was unattractively served on a tray-plate type tray with bread, corn, fish, potatoes. The evening meal was to include apples which I know most residents could not eat. Floor appeared dirty. Odors were few. I do think that they tried hard to B&B train. There were always 1 aide/17 residents, therefore, I knew that even though the residents were "intermediate" they could not give really good care. They had an activity chairman who was trying hard. The stairway to second floor was dangerous and second floor residents were really confined to the upstairs.

Building is architecturally bad. To get to the second floor you must go through a ward of ladies. The building is in bad repair with doors off hinges and fronts of dressers off.

Administrator and director of nursing share one very cramped 9x10 office. Director of nursing seems to be trying to do a good rehab program. She is doing a good in-service program twice a month for all nursing staff covering broad range of topics at all staff levels.

And, here we go, an ulcer special. Not very clean at all!! However, I felt warmth between residents and staff. This place is next to a very old neighborhood. I parked my car across the street, and I prayed a lot so that my tires or trunk wasn't broken into. The administrator did not come in the entire day. Short staffed today. You had to go through a 4 bed ward to a stair well to get to the second floor. How do they pass the State? They have only intermediate, no skilled or sheltered care. In my thinking, most of the ones I saw should have been skilled. There is a social worker here, but no record of her having been here in the charts. No rehab here according to the charts. The resident dining room was a small room, if you could call it that, that overlooked the wall of the garage. Very minimum of furnishings, far from the best. On the first floor the lounge was a small room, maybe 12x12 which had a Goodwill variety of furniture, a couple of end tables and a couple of lamps which were never turned on all the time I was there. No rehab here. There was a buzzer on the front door which was kept locked. Bad, bad neighborhood?? They have a LPN on nights. There was a fireplace unlit in the 2nd floor lounge, the first time I had ever seen this. HOWEVER, I felt there was warmth, empathy between the residents and staff. When I rechecked the kitchen one of the women, possibly the head was in slip-on shoes. When I commented, she said she was tired and it was not according to regulations. Residents were both white and black. One resident said she took her purse with her at all times because the other residents and staff stole from her purse. She was in a mental institution previously. There was a retired LPN who really loved the place as a resident. She had all her marbles. The residents overall seemed to be very happy. There was a lot of love between staff and residents on the first floor. There was not a very pleasant odor, floors not waxed--How do you explain the love for the residents??? Food did not appear that good either. Lawn was nil.

This place was one of the worst designed nursing homes I've ever been in. The second floor is a converted apartment and doctor's offices which looks like a "real afterthought." The only way to get up there from first floor is through a 4 bedroom!

The staff was congenial and cooperated well. The food they served looked attractive and everyone was appearing to enjoy it. The staff was all black.

The LPN's were only observed to be behind the desk and charting. The aides did get people out of wheelchairs for short times. They had them stand in the halls holding onto the rails. The place was quite dirty with the second floor being the worst. There was very little lounge area and a small activities area that doubled as the dining area. The administrator and director of nursing shared very cramped quarters. The director of nursing never worked weekends.

There were a group of kids from the neighborhood who caught the bus for school on the corner by the home. The windows of the rooms are at eye level for passerbys and some of the kids were especially friendly to one resident in particular--waving and acknowledging her through the window.

Facility No. 19

What I liked most was both administrator and director of nurses were very warm and cordial. There appeared to be good staff relationships with both. The really confused were kept on a separate unit and allowed to wander. A very cooperative staff (not suspicious of us). It had a lovely setting. Good and substantial serving of food.

What I liked least was the complexity of the building, and that there was only 1 elevator to the third floor in one part of building.

Large well maintained building (not always a nursing home) large pleasant yard.

A knowledgeable administrator who appears to know what she's doing. Interestingly she has a college degree and started out as activity director, then moved into administration.

Nursing department is not functioning as well as it should be for the amount of help and the quality of help they have. I had a feeling a lack of staff unity as each department functions, but can't feel too much concern for the other department. Rehab is left to the PT department and to outsiders.

Nursing department is knowledgeable, excellent in-service--even offer geriatric nursing courses to the area but do not seem to be able to implement what they know.

What warmth and friendliness. The rehab care is very good. The facility has a very large lounge with fireplace. The linens are color coded. They have own x-ray and Bennett machine for inhalation therapy and have had it 1½ years and only used it once. The large library used very little by residents. The rehab care is handled by outsiders on contract. All bedpans, emesis basins are sterilized once a week. They also have standing orders. There is baking 2 times a week for residents. The residents made 13 pies for a party. There is concern for residents evident everywhere. Was introduced to a former resident who came in in fetal position. After 3 years she is now living alone. She was well dressed and groomed. One of the aides I interviewed took her home at Thanksgiving and Christmas while she was confined to the facility. While I was in the office staff members from the rehab team came to talk to director of nurses. One of the staff seemed to be irritating a resident and not being as encouraging as much as she might. The problem was discussed and the staff member offered to change her day off so she could take care of the resident and solve the problem.

Disaster plans were posted on bulletin boards, in a rather inconspicuous place, but this place seemed better prepared to cope with fire than most homes. Also this home seemed better staffed than most, more concerned with residents, and residents seemed to get more restorative nursing care.

Facility No. 20

Greeted by friendly staff who were ready for us. They were very cooperative. The building is in a residential area with large park-like setting. Very few residents were seen outside during the very nice day I was there. Neighbor children play on grounds providing activities for residents to watch.

Ten to twelve severely multihandicapped young people were among the residents and it appears difficult to work with at best. Barest of attention paid to them. Many have severe contractures.
This home has a depressive atmosphere about it, cold and unfeeling. Staff is short; director of nursing is working 3-11 as she has no one else. The staff is doing bare routines and nothing else. Many residents were just sitting in room staring straight ahead.

There is a feeling of clutter, unkempt appearances in most rooms, and of crowded old furniture downstairs. The activity director is trying. One resident partially blind had designed and implemented a shuffleboard game in craft room by using mop handles for pushers.

Administrator made a brief appearance then took off for the day.

Food was sad. We ate there, cold chicken soup, liversausage sandwiches and they ran out of the sandwiches.

A very institutional like and cold building. There is only 1 way to basement by way of slow elevator; the activities room is housed there and more patient rooms. The activities room was very small but there was a good activities director.

For lunch they ran out of liver sausage sandwiches!

The director of nursing could not be there on days because they were short staffed and she worked P.M.'s.

I didn't see any rehab nursing being done. The patients' days seemed very regimented. No matter how they felt or what they asked for, they were either up or put to bed depending on time of day.

The activities director seemed the warmest person there. She took a real interest in several residents and worked with them well.

The Administrator was there only for a short time.

The administrator was leaving just as we walked in. He introduced us to the Director of Nurses. She is typical old maid type, and hid somewhere all the time we were there. We had a dickens of a time trying to get the administrator's report complete. The RN in the one wing helped "C" complete her wing. We got no cooperation from the RN in another wing. We ended up leaving it with administrator's secretary. The RN on the old wing had been here 3 years and is about ready to leave. No love lost between her and the administrator and director of nurses. She said she took the rehab course and came back ready to train staff, but she wasn't allowed to because they couldn't take the time. We had liver sausage sandwiches for lunch;

at least they didn't run out the way they did when the other team was there. Very young activities director who is really trying. Didn't see any of the "books" from office. RN from the old wing and activities director said they felt uncomfortable going into the administrator's office. All three water fountains had saliva in them. I came home "very thirsty." Medications are on large cards with capsules in a bubble, each numbered. Easy to take count. RN, old wing, said the administrator was trying to get brownie points with state and so he had employed two handicapped aides.

The biggest shortcoming in this home was lack of good inservice education and teaching of rehab and restorative nursing techniques to aides. I'm sure they are short staffed although they were fairly well staffed the day I was there. There was very low morale among staff. They had liver sausage sandwiches and soup for lunch today again!

APPENDIX E

PILOT TEST FACILITY DEBRIEFING

1. Poll of Administrators
2. Transmittal of Profile Reports

RUSH-PRESBYTERIAN-ST. LUKES MEDICAL CENTER

1753 WEST CONGRESS PARKWAY, CHICAGO 60612

November 16, 1973

I am writing on behalf of the joint Rush-Presbyterian-St. Luke's/ Medicus research project on evaluation of long-term care facilities to thank you and your staff for their cooperation during our field tests.

The last data collection will take place November 20. We anticipate that analysis and scoring of this data will take about two months. Thus we hope to share with you our results for your own facility sometime in January or February.

In the meantime, we would like to hear from you about your reactions to our new survey procedures. An important purpose of our field test is to determine the impact of the surveyor's presence on the facility's normal routine. To provide us with this information, please answer the questions on the enclosed questionnaire, while the field test visits are still fresh in your mind, and return it to us as soon as possible.

Again, thank you for your cooperation and for your interest in this important research project. Please share our gratitude with your staff.

Yours truly,

Robert J. Richard
Project Manager

RJR:bcb
Encl.
cc: Janet Feldman, R.N.

Rush-Presbyterian-St. Luke's Medical Center

EVALUATION OF QUALITY OF LIFE AND CARE IN LONG-TERM CARE FACILITIES

Name of Facility _____ ID _____

Note: This information is confidential and will be used only for the purposes of the research project. In answering some of these questions you may want to consult with the project's liaison person in your facility or with other staff. Thank you for your cooperation.

(1) What particular difficulties did you have obtaining information to fill out the Administrator's Report mailed to you before our first survey?

(2) What questions or instructions on the Administrator's Report do you recall as being confusing or unclear?

(3) Do you feel that the Administrator's Report was unnecessarily difficult or time-consuming?

Yes 1
No 2

(4) How did the residents interviewed by the surveyors react to these interviews? (Please be specific and anecdotal if you can.)

(5) Were any of the surveyors' activities in your facility disruptive of your normal routines? If so, how? (Please try to be specific.)

(6) Taken as a whole, was the project's survey more disruptive than an IDPH or Chicago Board of Health annual licensure survey (Phase I), less disruptive, or about the same?

More disruptive 1
Less disruptive 2
About the same 3

(7) What suggestions can you make to improve our survey procedures from the point of view of facility staff?

(8) How were the project's surveyors <u>perceived</u> by facility staff? (Generally favorable? Unfavorable? Like government inspectors? Different from government inspectors?)

(9) Please make any other comments you feel are appropriate.

Date _____ Your Title _____

Signature _____

Please return to:

Robert J. Richard
Project Manager
1725 West Harrison Street
Suite 700
Chicago, Illinois 60612

RUSH-PRESBYTERIAN-ST. LUKES MEDICAL CENTER

1753 WEST CONGRESS PARKWAY, CHICAGO 60612

Dear

I am writing on behalf of the research project on evaluation of long-term care recently completed by Rush-Presbyterian-St. Luke's Medical Center and the Medicus Corporation. We have finished scoring the data collected during our pilot test of new survey instruments last November and are now able to report to you on our trial survey of your facility.

Among the enclosures to this letter is the Facility Profile Report for your facility (Enclosure 2). Enclosure 1 is a step-by-step guide to reading and interpreting this profile report. Please study the first enclosure carefully before reviewing the second.

It is very important for you to remember that the numerical scores in this profile reflect where your facility stands among the facilities we surveyed. That is, they evaluate each facility relative to other facilities, not relative to some abstract standard. It is equally important for you to keep in mind that these scores are calculated on the basis of data collected in 20 non-representative facilities. As a result, your scores do not reflect your standing among all long-term care facilities, only among the specific 20 we surveyed.

The first enclosure also emphasizes, and I would like to repeat here, that the "need satisfaction" scores on the second page of your profile report are not statistically reliable and should be viewed skeptically. Each score is a percentage of the residents in the small sample we interviewed. Since the sample sizes are small, these percentages are subject to large variations from one sample to the next within any one facility. As a result, they are not necessarity good estimates of the percentage of all the residents of your facility whose specific need is being met at the relative level established by project staff.

Enclosure 3 is a listing of the scores of all 20 facilities on the four most general characteristics in the profile report. These are the three "major objective" variables and the overall "quality index" variable

shown in the right-hand portion of the first page of the profile report. This enclosure should give you a visual indication of where your facility fits among the 20 we surveyed. The enclosure does not, of course, provide any means of identifying the other 19 facilities.

Our final report to the federal government includes no mention of the names of the 20 participating facilities, nor any means of identifying individual facilities through the data presented. The confidentiality of the data is assured.

We hope that you and your staff will be able to use your profile report to increase your agency's ability to meet the goal of quality life and care in long-term care facilities. Please feel free to contact me at 312/942-5379 if you should need further information about this report. In addition, let me thank you again on behalf of the project staff for your participation and assistance during this research project.

Yours truly,

Janet Feldman, R.N.
Field Coordinator

JF:bb
Encl.

ENCLOSURE 1

I. HOW TO INTERPRET YOUR FACILITY PROFILE REPORT I : Quality Scores

A. General Information

1. Scores may range from 0.000 to 1.000 with the midpoint (mean value) being 0.500.

2. Scores that are well above the midpoint indicate high quality (or strength) while scores that are below the midpoint indicate low quality (or weakness). Defining this statistically, if your score is greater than the mean plus one standard deviation on any score, your score is better than 83% of the sample. Similarly, if your score is less than the mean minus one standard deviation, your score is worse than 83% of the sample. The standard deviations of the major objectives and quality indices are provided below.

	Major Objectives			Quality Index
	1	2	3	
Mean	0.500	0.500	0.500	0.500
Standard Deviation	0.055	0.089	0.074	0.071

3. Scores that are close to 0.500, within one standard deviation, indicate a process that is about average in relation to the other facilities in the sample.

4. The Quality Index Score is the unweighted average of the major objective scores.

5. The Major Objective scores are the unweighted average of the subobjective scores.

6. The Quality Criterion scores are the weighted average of the item scores. (Item scores are not printed on the facility profiles.)

7. Note: The scores have been standardized to reflect a home in relation to the other homes in the sample. The scores do not reflect a facilities relationship to the total universe of Long Term Care agencies. For example, a score of 0.100 on Restorative Nursing Practice only indicates that on that criterion the facility is significantly worse that the other 19 in the sample. Similarly, a score of 0.987 on Food Service Cleanliness indicates a higher quality relative only to the other 19 agencies in the sample.

8. The criterion, subobjective and major objective scores do reflect the relative strength and weakness of aspects of the facility as compared to the other facilities in the study sample.

B. To Identify Areas of Strength

1. Start at the right hand side of the page.

2. Look at the three Major Objective scores.
The 3 Major Objectives are.

1. Psychosocial Environment
2. Physical Plant and Personal Services
3. Professional Services

3. Find the highest numerical score.

4. Look to the left to find the highest subobjective score for that major objective.

5. Look again to the left to identify which criterion (criteria) is the highest numerically. This may be considered an indication of strength.

6. Look also at the other numerical scores of the other criteria bracketed with the high scoring criterion. Identify which of the quality criteria helped to raise or lower the related subobjective score. This will help to indicate areas of strength and areas that could be improved under the specific subobjective.

7. Repeat steps 5 and 6 for each of the subobjectives related to the major objective being reviewed.

8. Remember these scores are relative only to the other 19 facilities in the sample and not to the total universe of LTC agencies.

C. To Identify Areas of Weakness:

1. Start at the right hand side of the page.

2. Look at the 3 major objectives.
The 3 major objectives are:

1. Psychosocial Environment
2. Physical Plant & Personal Services
3. Professional Services

3. Find the lowest numerical score.

4. Look to the left to find the lowest subobjective score for that major objective.

5. Look again to the left to identify which criterion (criteria) is the lowest numerically. This may be considered an indication of weakness.

6. Look also at the other numerical scores of the various criteria bracketed for that subobjective. Identify which quality criterion are high and low numerically. This will indicate both areas of weakness and of strength related to the specific subobjectives.

7. Repeat steps 5 and 6 for each of the subobjectives related to the major objective being reviewed.

8. Remember these scores are relative only to the other 19 facilities in the sample and not to the total universe of LTC agencies.

II. HOW TO INTERPRET YOUR FACILITY PROFILE REPORT II: Need Satisfaction Score

A. General Information

1. Scores are percentages and thus can range from 0 to 100% In this fashion a score of 0.899 can be interpreted as 89.9%.

2. These scores are designed to reflect the percentage of residents in your facility whose needs, as identified by the patient criterion, are being met satisfactorily by the resources in your facility.

3. As the number of residents surveyed was small, it is best to view these percentages skeptically. It is possible that our sample, even though it was selected randomly, may not accurately represent your census. The percentages reported may be unrealistically low because of the small sample.

4. Regardless of the small sample, however, a need satisfaction score of less than one, or 100%, should be considered as indicative of your agency's relative inability to provide adequate care to residents exhibiting significant need in this area.

B. Interpreting High Need Scores

1. These scores are indicative of the adequacy of the resources available in your facility for providing care to residents exhibiting high need in the area identified by the resident need criterion.

2. A score of less than 1.00 or 100% indicates that your resources may not be suitable for providing care to residents exhibiting a significantly low level of functioning in this area.

3. The percentages, again because of the small sample, should not be viewed as being reflective of your ability to meet the needs of all your residents, but only some percentage of the sample, which may or may not be reflective of your census.

C. Interpreting Low Need Scores.

1. It has been identified that people who have been institutionalized but maintain a high level of psychosocial functioning have very specific needs that should be met by the facility in which they reside.

2. The Low Need Satisfaction Scores have been constructed to measure a facility's ability to meet the needs of residents who have maintained a high level of psychosocial functioning.

3. Again, a score of less than 1.00 or 100% indicates some deficiency in the resources of your facility to meeting the needs of residents who maintain a high functional level in the area indicated.

ENCLOSURE 3

MAJOR OBJECTIVE AND INDEX SCORES

Note: Your facility is ID #_____. Data collected November 1973

Facility ID #	Major Objective Scores			Quality Index
	1. Psychosocial Environment	2. Physical Plant & Personal Services	3. Professional Services	
1	.519	.463	.414	.465
2	.468	.570	.535	.524
3	.551	.496	.572	.539
4	.598	.567	.511	.558
5	.428	.398	.420	.415
6	.429	.462	.400	.430
7	.424	.435	.437	.432
8	.484	.547	.502	.511
9	.477	.541	.518	.512
10	.457	.451	.463	.457
11	.527	.524	.442	.497
12	.552	.632	.591	.591
13	.602	.651	.555	.602
14	.467	.379	.451	.432
15	.532	.441	.530	.501
16	.535	.605	.662	.600
17	.443	.373	.427	.414
18	.414	.371	.371	.385
19	.569	.638	.639	.615
20	.487	.411	.429	.442

APPENDIX F

PILOT TEST FACILITY PROFILE REPORTS

FACILITY PROFILE REPORT I: QUALITY SCORES

FACILITY ID: 1

DATE OF SURVEY: 11/12/73 SURVEYOR IDs: 2 AND 3 LOCATION: Suburban OWNERSHIP: Proprietary BED SIZE/SKILLED: 110; ICF: ; SHELTERED:

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.426					
2. View from Windows	.608					
9. Orderliness/Personal & Private Spaces	.556	1. Enriched Personalized Environment	.558			
5. Building Complexity	.643					
29. Staff Tolerance/Somatic	.624					
30. Staff Tolerance/Behavior	.587					
31. Staff Recognition	.534	2. Staff-Resident Relationships	.514	1. Psychosocial Environment	.519	
32. Residents' Openness with Staff	.362					
34. Group Spirit	.508					
25. Activity Level	.412					
26. Structured Activities	.489					
27. Informal Activities	.563	3. Involvement In Activities	.486			
28. Resident Interaction	.532					
1. Illumination	.613					
3. Condition of Plant	.469					
6. Unpleasant Odors	.480					
7. Cleanliness	.472	4. Physical Plant	.466			
8. Maintenance Practices	.413					
24. General Attractiveness	.405					
11. Food Service/Cleanliness	.452			2. Physical Plant & Personal Services	.463	.465
12. Food Service/Attractiveness	.524					
14. Residents' Grooming & Personal Care	.464	5. Personal Services	.461			
15. Nursing Service Staffing Levels	.405					
10. Food Service Personnel	.473					
19. Pharmacy Facilities	.440					
35. Inservice/Use of Professional Resources	.405	6. Administrative & Support	.418			
36. Inservice/For all Staff	.412					
39. Administrative Resources	.388					
40. Patient Records	.442					
17. Restorative Nursing Practice	.374					
22. Documentation of Restorative Care	.341					
23. Use of Programmatic Resources	.472	7. Rehabilitative & Restorative Car	.393	3. Professional Services	.414	
33. Encouragement of Patient Activity	.411					
38. Community Resources	.354					
13. Medical & Professional Support Staffing	.489					
16. Nursing Supervision	.514					
18. Nursing Policies	.362					
20. Medications/Practices	.421	8. Health Care Services	.431			
21. Medications/Safety	.394					
37. Professionalism of Staff	.488					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 1

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/3/73
09 - 16	10/5/73
17 - 20	11/12/73

NOTE

Scores are percentages based on 20 residents, or approximately a 20 per cent sample of the census.

RESIDENT NEED CRITERION	SATISFACTION SCORES HIGH NEED	LOW NEED
	69.9%	
8. Physical Competence/Hearing	89.9	
9. Physical Competence/Vision	94.9	
24. Physical Competence/Mobility	89.9	
25. Physical Competence/Eating		
	89.9	
2. Self Care/Grooming	94.9	
3. Change in Physical Status		
20. Geriatric Rating Scale (GRS)	84.9	
26. Self Care/General		
	100.0	
5. Special Nursing Care/Decubiti	94.9	
6. Special Nursing Care/Catheters	89.9	
7. Special Nursing Care/Bowel & Bladder	94.9	
27. General Nursing Care		
	94.9	100.0%
4. Change in Mental Status	84.9	94.9
12. Night-time Behavior	94.9	100.0
13. Anti-social Behavior	64.9	100.0
15. Need for Psychiatric Care		
	79.9	100.0
1. Communication Skills	100.0	100.0
10. Memory Span	89.9	84.9
11. Social Interaction	100.0	94.9
16. Situational Memory	100.0	89.9
19. Social Judgment		
	100.0	94.9
17. Verbal Competence	100.0	89.9
21. Object Identification	89.9	100.0
22. Digit Span/Forward	100.0	100.0
23. Digit Span/Backward	100.0	94.9
28. Verbal Intelligence Estimate		
	94.9	100.0
18. Spatial Orientation		
	100.0	
14. Satisfaction with Facility		

FACILITY PROFILE REPORT I: QUALITY SCORES

FACILITY ID: 2

DATE OF SURVEY: 11/8/73 SURVEYOR IDs: 2 AND 5 LOCATION: Subruban OWNERSHIP: Voluntary BED SIZE/SKILLED: 180 ; ICF: ; SHELTERED: 120

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.552					
2. View from Windows	.492					
9. Orderliness/Personal & Private Spaces	.380	1. Enriched Personalized Environment	.422			
5. Building Complexity	.264					
29. Staff Tolerance/Somatic	.368					
30. Staff Tolerance/Behavior	.399					
31. Staff Recognition	.556	2. Staff-Resident Relationships	.452	1. Psychosocial Environment	.468	
32. Residents' Openness with Staff	.552					
34. Group Spirit	.398					
25. Activity Level	.629					
26. Structured Activities	.530					
27. Informal Activities	.676	3. Involvement in Activities	.532			
28. Resident Interaction	.341					
1. Illumination	.501					
3. Condition of Plant	.577					
6. Unpleasant Odors	.574					
7. Cleanliness	.658	4. Physical Plant	.586			
8. Maintenance Practices	.556					
24. General Attractiveness	.614					
11. Food Service/Cleanliness	.512			2. Physical Plant & Personal Services	.570	.524
12. Food Service/Attractiveness	.602					
14. Residents' Grooming & Personal Care	.662	5. Personal Services	.555			
15. Nursing Service Staffing Levels	.477					
10. Food Service Personnel	.396					
19. Pharmacy Facilities	.809					
35. Inservice/Use of Professional Resources	.537	6. Administrative & Support	.555			
36. Inservice/For all Staff	.472					
39. Administrative Resources	.606					
40. Patient Records	.598					
17. Restorative Nursing Practice	.341					
22. Documentation of Restorative Care	.566					
23. Use of Programmatic Resources	.606	7. Rehabilitative & Restorative Car	.475	3. Professional Services	.535	
33. Encouragement of Patient Activity	.371					
38. Community Resources	.561					
13. Medical & Professional Support Staffing	.559					
16. Nursing Supervision	.646					
18. Nursing Policies	.649					
20. Medications/Practices	.455	8. Health Care Services	.575			
21. Medications/Safety	.398					
37. Professionalism of Staff	.686					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 2

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/9/73
09 - 12	11/8/73

RESIDENT NEED CRITERION	SATISFACTION SCORES HIGH NEED	LOW NEED
8. Physical Competence/Hearing	75.0%	
9. Physical Competence/Vision	83.3	
24. Physical Competence/Mobility	66.6	
25. Physical Competence/Eating	33.3	
2. Self Care/Grooming	100.0	
3. Change in Physical Status	50.0	
20. Geriatric Rating Scale (GRS)	91.6	
26. Self Care/General		
5. Special Nursing Care/Decubiti	91.6	
6. Special Nursing Care/Catheters	100.0	
7. Special Nursing Care/Bowel & Bladder	83.3	
27. General Nursing Care	100.0	
4. Change in Mental Status	83.3	100.0%
12. Night-time Behavior	83.3	100.0
13. Anti-social Behavior	83.3	91.6
15. Need for Psychiatric Care	75.0	100.0
1. Communication Skills	83.3	100.0
10. Memory Span	100.0	100.0
11. Social Interaction	100.0	100.0
16. Situational Memory	100.0	91.6
19. Social Judgment	100.0	75.0
17. Verbal Competence	100.0	75.0
21. Object Identification	100.0	66.6
22. Digit Span/Forward	83.3	100.0
23. Digit Span/Backward	100.0	100.0
28. Verbal Intelligence Estimate	100.0	83.3
18. Spatial Orientation	83.3	100.0
14. Satisfaction with Facility	100.0	

NOTE

Scores are percentages based on 12 residents, or approximately a 05 per cent sample of the census.

FACILITY PROFILE REPORT I: QUALITY SCORES

FACILITY ID: 3

DATE OF SURVEY: 11/5/73 SURVEYOR IDs: 2 AND 3 LOCATION: Suburban OWNERSHIP: Public BED SIZE/SKILLED: 200 ; ICF: 90 ; SHELTERED:

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.551					
2. View from Windows	.663					
9. Orderliness/Personal & Private Spaces	.416	1. Enriched,Personalized Environment	.459			
5. Building Complexity	.209					
29. Staff Tolerance/Somatic	.572					
30. Staff Tolerance/Behavior	.498					
31. Staff Recognition	.556	2. Staff-Resident Relationships	.563	1. Psychosocial Environment	.551	
32. Residents' Openness with Staff	.589					
34. Group Spirit	.592					
25. Activity Level	.596					
26. Structured Activities	.666					
27. Informal Activities	.744	3. Involvement in Activities	.632			
28. Resident Interaction	.572					
1. Illumination	.613					
3. Condition of Plant	.460					
6. Unpleasant Odors	.545					
7. Cleanliness	.472	4. Physical Plant	.533			
8. Maintenance Practices	.510					
24. General Attractiveness	.621					
11. Food Service/Cleanliness	.479			2. Physical Plant & Personal Services	.496	.539
12. Food Service/Attractiveness	.419					
14. Residents' Grooming & Personal Care	.507	5. Personal Services	.459			
15. Nursing Service Staffing Levels	.453					
10. Food Service Personnel	.484					
19. Pharmacy Facilities	.809					
35. Inservice/Use of Professional Resources	.707	6. Administrative & Support	.591			
36. Inservice/For all Staff	.545					
39. Administrative Resources	.560					
40. Patient Records	.442					
17. Restorative Nursing Practice	.594					
22. Documentation of Restorative Care	.562					
23. Use of Programmatic Resources	.586	7. Rehabilitative & Restorative Care	.598	3. Professional Services	.572	
33. Encouragement of Patient Activity	.652					
38. Community Resources	.580					
13. Medical & Professional Support Staffing	.627					
16. Nursing Supervision	.640					
18. Nursing Policies	.543					
20. Medications/Practices	.392	8. Health Care Services	.527			
21. Medications/Safety	.416					
37. Professionalism of Staff	.553					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 3

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/1/73
09 - 16	10/5/73
17 - 20	11/5/73

NOTE

Scores are percentages based on 20 residents, or approximately a 07 per cent sample of the census.

RESIDENT NEED CRITERION	SATISFACTION SCORES HIGH NEED	LOW NEED
8. Physical Competence/Hearing	94.9%	
9. Physical Competence/Vision	84.9	
24. Physical Competence/Mobility	100.0	
25. Physical Competence/Eating	94.9	
2. Self Care/Grooming	100.0	
3. Change in Physical Status	100.0	
20. Geriatric Rating Scale (GRS)		
26. Self Care/General	100.0	
5. Special Nursing Care/Decubiti	100.0	
6. Special Nursing Care/Catheters	94.9	
7. Special Nursing Care/Bowel & Bladder	79.9	
27. General Nursing Care	100.0	
4. Change in Mental Status	100.0	100.0%
12. Night-time Behavior	94.9	100.0
13. Anti-social Behavior	94.9	100.0
15. Need for Psychiatric Care	94.9	100.0
1. Communication Skills	84.9	100.0
10. Memory Span	100.0	100.0
11. Social Interaction	100.0	100.0
16. Situational Memory	100.0	100.0
19. Social Judgment	100.0	84.9
17. Verbal Competence	100.0	100.0
21. Object Identification	100.0	100.0
22. Digit Span/Forward	89.9	100.0
23. Digit Span/Backward	100.0	100.0
28. Verbal Intelligence Estimate	100.0	94.9
18. Spatial Orientation	89.9	100.0
14. Satisfaction with Facility	100.0	

FACILITY PROFILE REPORT I: QUALITY SCORES

FACILITY ID: 4

DATE OF SURVEY: 11/16/73 SURVEYOR IDs: 2 AND 3 LOCATION: Small Town/Rural OWNERSHIP: Voluntary BED SIZE/SKILLED: 50 ; ICF: ; SHELTERED: 70

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.627					
2. View from Windows	.719					
9. Orderliness/Personal & Private Spaces	.506	1. Enriched Personalized Environment	.591			
5. Building Complexity	.516					
29. Staff Tolerance/Somatic	.507					
30. Staff Tolerance/Behavior	.587					
31. Staff Recognition	.556	2. Staff-Resident Relationships	.559	1. Psychosocial Environment	.598	
32. Residents' Openness with Staff	.516					
34. Group Spirit	.657					
25. Activity Level	.584					
26. Structured Activities	.666					
27. Informal Activities	.751	3. Involvement in Activities	.644			
28. Resident Interaction	.628					
1. Illumination	.613					
3. Condition of Plant	.694					
6. Unpleasant Odors	.647					
7. Cleanliness	.708	4. Physical Plant	.644			
8. Maintenance Practices	.562					
24. General Attractiveness	.642					
11. Food Service/Cleanliness	.590			2. Physical Plant & Personal Services	.567	.558
12. Food Service/Attractiveness	.602					
14. Residents' Grooming & Personal Care	.600	5. Personal Services	.491			
15. Nursing Service Staffing Levels	.192					
10. Food Service Personnel	.397					
19. Pharmacy Facilities	.377					
35. Inservice/Use of Professional Resources	.529	6. Administrative & Support	.480			
36. Inservice/For all Staff	.536					
39. Administrative Resources	.520					
40. Patient Records	.412					
17. Restorative Nursing Practice	.539					
22. Documentation of Restorative Care	.368					
23. Use of Programmatic Resources	.605	7. Rehabilitative & Restorative Car	.570	3. Professional Services	.511	
33. Encouragement of Patient Activity	.599					
38. Community Resources	.663					
13. Medical & Professional Support Staffing	.449					
16. Nursing Supervision	.635					
18. Nursing Policies	.493					
20. Medications/Practices	.455	8. Health Care Services	.485			
21. Medications/Safety	.416					
37. Professionalism of Staff	.501					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 4

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/18/73
09 - 12	11/16/73

RESIDENT NEED CRITERION	SATISFACTION SCORES HIGH NEED	LOW NEED
8. Physical Competence/Hearing	83.3%	
9. Physical Competence/Vision	83.3	
24. Physical Competence/Mobility	100.0	
25. Physical Competence/Eating	66.6	
2. Self Care/Grooming	100.0	
3. Change in Physical Status	100.0	
20. Geriatric Rating Scale (GRS)		
26. Self Care/General	100.0	
5. Special Nursing Care/Decubiti	91.6	
6. Special Nursing Care/Catheters	100.0	
7. Special Nursing Care/Bowel & Bladder	75.0	
27. General Nursing Care	91.6	
4. Change in Mental Status	100.0	100.0%
12. Night-time Behavior	91.6	100.0
13. Anti-social Behavior	91.6	100.0
15. Need for Psychiatric Care	100.0	100.0
1. Communication Skills	91.6	100.0
10. Memory Span	100.0	100.0
11. Social Interaction	100.0	100.0
16. Situational Memory	100.0	83.3
19. Social Judgment	100.0	75.0
17. Verbal Competence	100.0	100.0
21. Object Identification	100.0	100.0
22. Digit Span/Forward	91.6	100.0
23. Digit Span/Backward	100.0	100.0
28. Verbal Intelligence Estimate	100.0	91.6
18. Spatial Orientation	91.6	100.0
14. Satisfaction with Facility	100.0	

NOTE

Scores are percentages based on 12 residents, or approximately a 10 per cent sample of the census.

FACILITY PROFILE REPORT I: QUALITY SCORES

FACILITY ID: 5

DATE OF SURVEY: 11/6/73 SURVEYOR IDs: 2 AND 3 LOCATION: Urban OWNERSHIP: Proprietary BED SIZE/SKILLED: 310 ; ICF: ; SHELTERED:

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.362					
2. View from Windows	.492					
9. Orderliness/Personal & Private Spaces	.623	1. Enriched Personalized Environment	.456			
5. Building Complexity	.351					
29. Staff Tolerance/Somatic	.403					
30. Staff Tolerance/Behavior	.343					
31. Staff Recognition	.049	2. Staff-Resident Relationships	.387	1. Psychosocial Environment	.428	
32. Residents' Openness with Staff	.552					
34. Group Spirit	.462					
25. Activity Level	.430					
26. Structured Activities	.434					
27. Informal Activities	.599	3. Involvement in Activities	.441			
28. Resident Interaction	.377					
1. Illumination	.613					
3. Condition of Plant	.544					
6. Unpleasant Odors	.265					
7. Cleanliness	.346	4. Physical Plant	.375			
8. Maintenance Practices	.357					
24. General Attractiveness	.279					
11. Food Service/Cleanliness	.306			2. Physical Plant & Personal Services	.398	.415
12. Food Service/Attractiveness	.463					
14. Residents' Grooming & Personal Care	.228	5. Personal Services	.421			
15. Nursing Service Staffing Levels	.635					
10. Food Service Personnel	.396					
19. Pharmacy Facilities	.440					
35. Inservice/Use of Professional Resources	.410	6. Administrative & Support	.413			
36. Inservice/For all Staff	.424					
39. Administrative Resources	.395					
40. Patient Records	.442					
17. Restorative Nursing Practice	.332					
22. Documentation of Restorative Care	.519					
23. Use of Programmatic Resources	.410	7. Rehabilitative & Restorative Car	.394	3. Professional Services	.420	
33. Encouragement of Patient Activity	.354					
38. Community Resources	.421					
13. Medical & Professional Support Staffing	.572					
16. Nursing Supervision	.635					
18. Nursing Policies	.345					
20. Medications/Practices	.450	8. Health Care Services	.453			
21. Medications/Safety	.312					
37. Professionalism of Staff	.514					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 5

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/1/73
09 - 16	10/3/73
17 - 20	11/6/73

RESIDENT NEED CRITERION	SATISFACTION SCORES HIGH NEED	LOW NEED
8. Physical Competence/Hearing	75.0%	
9. Physical Competence/Vision	79.9	
24. Physical Competence/Mobility	79.9	
25. Physical Competence/Eating	94.9	
2. Self Care/Grooming	14.9	
3. Change in Physical Status	94.9	
20. Geriatric Rating Scale (GRS)		
26. Self Care/General	69.9	
5. Special Nursing Care/Decubiti	89.9	
6. Special Nursing Care/Catheters	94.9	
7. Special Nursing Care/Bowel & Bladder	75.0	
27. General Nursing Care	94.9	
4. Change in Mental Status	89.9	100.0
12. Night-time Behavior	64.9	94.9
13. Anti-social Behavior	59.9	94.9
15. Need for Psychiatric Care	64.9	100.0
1. Communication Skills	59.9	100.0
10. Memory Span	100.0	100.0
11. Social Interaction	54.9	89.9
16. Situational Memory	69.9	69.9
19. Social Judgment	100.0	79.9
17. Verbal Competence	64.9	89.9
21. Object Identification	94.9	89.9
22. Digit Span/Forward	64.9	100.0
23. Digit Span/Backward	100.0	100.0
28. Verbal Intelligence Estimate	100.0	89.9
18. Spatial Orientation	69.9	94.9
14. Satisfaction with Facility	79.9	

NOTE

Scores are percentages based on 20 residents, or approximately a 07 per cent sample of the census.

FACILITY PROFILE REPORT I: QUALITY SCORES

FACILITY ID: 6

DATE OF SURVEY: 11/20/73 SURVEYOR IDs: 2 AND 3 LOCATION: Urban OWNERSHIP: Proprietary BED SIZE/SKILLED: 240 ; ICF: ; SHELTERED:

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.394					
2. View from Windows	.615					
9. Orderliness/Personal & Private Spaces	.505	1. Enriched Personalized Environment	.466			
5. Building Complexity	.352					
29. Staff Tolerance/Somatic	.483					
30. Staff Tolerance/Behavior	.528					
31. Staff Recognition	.556	2. Staff-Resident Relationships	.497	1. Psychosocial Environment	.429	
32. Residents' Openness with Staff	.524					
34. Group Spirit	.418					
25. Activity Level	.408					
26. Structured Activities	.133					
27. Informal Activities	.395	3. Involvement in Activities	.324			
28. Resident Interaction	.427					
1. Illumination	.580					
3. Condition of Plant	.387					
6. Unpleasant Odors	.356					
7. Cleanliness	.472	4. Physical Plant	.393			
8. Maintenance Practices	.265					
24. General Attractiveness	.366					
11. Food Service/Cleanliness	.512					
12. Food Service/Attractiveness	.488			2. Physical Plant & Personal Services	.462	.430
14. Residents' Grooming & Personal Care	.334	5. Personal Services	.531			
15. Nursing Service Staffing Levels	.742					
10. Food Service Personnel	.473					
19. Pharmacy Facilities	.527					
35. Inservice/Use of Professional Resources	.286	6. Administrative & Support	.382			
36. Inservice/For all Staff	.291					
39. Administrative Resources	.492					
40. Patient Records	.314					
17. Restorative Nursing Practice	.264					
22. Documentation of Restorative Care	.342					
23. Use of Programmatic Resources	.390	7. Rehabilitative & Restorative Care	.324	3. Professional Services	.400	
33. Encouragement of Patient Activity	.323					
38. Community Resources	.431					
13. Medical & Professional Support Staffing	.821					
16. Nursing Supervision	.376					
18. Nursing Policies	.446					
20. Medications/Practices	.394	8. Health Care Services	.495			
21. Medications/Safety	.416					
37. Professionalism of Staff	.477					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 6

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/25/73
09 - 12	11/20/73

RESIDENT NEED CRITERION	SATISFACTION SCORES HIGH NEED	LOW NEED
8. Physical Competence/Hearing	91.6%	
9. Physical Competence/Vision	58.3	
24. Physical Competence/Mobility	75.0	
25. Physical Competence/Eating	66.6	
2. Self Care/Grooming	33.3	
3. Change in Physical Status	100.0	
20. Geriatric Rating Scale (GRS)		
26. Self Care/General	66.6	
5. Special Nursing Care/Decubiti	91.6	
6. Special Nursing Care/Catheters	83.3	
7. Special Nursing Care/Bowel & Bladder	83.3	
27. General Nursing Care	100.0	
4. Change in Mental Status	100.0	100.0%
12. Night-time Behavior	83.3	100.0
13. Anti-social Behavior	91.6	100.0
15. Need for Psychiatric Care	75.0	100.0
1. Communication Skills	75.0	100.0
10. Memory Span	100.0	100.0
11. Social Interaction	50.0	75.0
16. Situational Memory	100.0	91.6
19. Social Judgment	100.0	75.0
17. Verbal Competence	83.3	91.6
21. Object Identification	91.6	83.3
22. Digit Span/Forward	75.0	100.0
23. Digit Span/Backward	100.0	100.0
28. Verbal Intelligence Estimate	100.0	83.3
18. Spatial Orientation	75.0	100.0
14. Satisfaction with Facility	100.0	

NOTE

Scores are percentages based on 12 residents, or approximately a 07 per cent sample of the census.

FACILITY PROFILE REPORT 1: QUALITY SCORES

FACILITY ID: 7

DATE OF SURVEY: 11/9/73 SURVEYOR IDs: 2 AND 3 LOCATION: Urban OWNERSHIP: Proprietary BED SIZE/SKILLED: 190 ; ICF: ; SHELTERED:

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.275					
2. View from Windows	.492					
9. Orderliness/Personal & Private Spaces	.470	1. Enriched Personalized Environment	.414			
5. Building Complexity	.422					
29. Staff Tolerance/Somatic	.443					
30. Staff Tolerance/Behavior	.363					
31. Staff Recognition	.556	2. Staff-Resident Relationships	.419	1. Psychosocial Environment	.424	
32. Residents' Openness with Staff	.348					
34. Group Spirit	.436					
25. Activity Level	.450					
26. Structured Activities	.454					
27. Informal Activities	.483	3. Involvement in Activities	.440			
28. Resident Interaction	.388					
1. Illumination	.613					
3. Condition of Plant	.520					
6. Unpleasant Odors	.466					
7. Cleanliness	.322	4. Physical Plant	.435			
8. Maintenance Practices	.484					
24. General Attractiveness	.310					
11. Food Service/Cleanliness	.400					
12. Food Service/Attractiveness	.441			2. Physical Plant & Personal Services	.435	.432
14. Residents' Grooming & Personal Care	.352	5. Personal Services	.436			
15. Nursing Service Staffing Levels	.532					
10. Food Service Personnel	.293					
19. Pharmacy Facilities	.491					
35. Inservice/Use of Professional Resources	.504	6. Administrative & Support	.450			
36. Inservice/For all Staff	.531					
39. Administrative Resources	.411					
40. Patient Records	.442					
17. Restorative Nursing Practice	.391					
22. Documentation of Restorative Care	.513					
23. Use of Programmatic Resources	.422	7. Rehabilitative & Restorative Car	.403	3. Professional Services	.437	
33. Encouragement of Patient Activity	.411					
38. Community Resources	.327					
13. Medical & Professional Support Staffing	.572					
16. Nursing Supervision	.635					
18. Nursing Policies	.443					
20. Medications/Practices	.387	8. Health Care Services	.460			
21. Medications/Safety	.248					
37. Professionalism of Staff	.489					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 7

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/10/73
09 - 12	11/9/73

	RESIDENT NEED CRITERION	SATISFACTION SCORES HIGH NEED	LOW NEED
8.	Physical Competence/Hearing	66.6%	
9.	Physical Competence/Vision	66.6	
24.	Physical Competence/Mobility	41.6	
25.	Physical Competence/Eating	66.6	
2.	Self Care/Grooming	50.0	
3.	Change in Physical Status	83.3	
20.	Geriatric Rating Scale (GRS)		
26.	Self Care/General	41.6	
5.	Special Nursing Care/Decubiti	66.6	
6.	Special Nursing Care/Catheters	75.0	
7.	Special Nursing Care/Bowel & Bladder	66.6	
27.	General Nursing Care	91.6	
4.	Change in Mental Status	100.0	100.0%
12.	Night-time Behavior	66.6	100.0
13.	Anti-social Behavior	83.3	91.6
15.	Need for Psychiatric Care	91.6	100.0
1.	Communication Skills	50.0	100.0
10.	Memory Span	100.0	100.0
11.	Social Interaction	41.6	91.6
16.	Situational Memory	100.0	41.6
19.	Social Judgment	100.0	41.6
17.	Verbal Competence	100.0	58.3
21.	Object Identification	91.6	58.3
22.	Digit Span/Forward	50.0	100.0
23.	Digit Span/Backward	100.0	100.0
28.	Verbal Intelligence Estimate	100.0	58.3
18.	Spatial Orientation	91.6	58.3
14.	Satisfaction with Facility	100.0	

NOTE

Scores are percentages based on 12 residents, or approximately a 06 per cent sample of the census.

FACILITY PROFILE REPORT I: QUALITY SCORES

FACILITY ID: 8

DATE OF SURVEY: 11/14/73 SURVEYOR IDs: 2 AND 3 LOCATION: Small Town/Rural OWNERSHIP: Proprietary BED SIZE/SKILLED: 70 ; ICF: ; SHELTERED: 50

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.510					
2. View from Windows	.321					
9. Orderliness/Personal & Private Spaces	.464	1. Enriched Personalized Environment	.454			
5. Building Complexity	.523					
29. Staff Tolerance/Somatic	.548					
30. Staff Tolerance/Behavior	.553					
31. Staff Recognition	.556	2. Staff-Resident Relationships	.498	1. Psychosocial Environment	.484	
32. Residents' Openness with Staff	.413					
34. Group Spirit	.466					
25. Activity Level	.462					
26. Structured Activities	.461					
27. Informal Activities	.536	3. Involvement in Activities	.502			
28. Resident Interaction	.586					
1. Illumination	.538					
3. Condition of Plant	.685					
6. Unpleasant Odors	.573					
7. Cleanliness	.637	4. Physical Plant	.582			
8. Maintenance Practices	.513					
24. General Attractiveness	.558					
11. Food Service/Cleanliness	.512					
12. Food Service/Attractiveness	.526			2. Physical Plant & Personal Services	.547	.511
14. Residents' Grooming & Personal Care	.508	5. Personal Services	.512			
15. Nursing Service Staffing Levels	.505					
10. Food Service Personnel	.506					
19. Pharmacy Facilities	.783					
35. Inservice/Use of Professional Resources	.553	6. Administrative & Support	.527			
36. Inservice/For all Staff	.558					
39. Administrative Resources	.456					
40. Patient Records	.407					
17. Restorative Nursing Practice	.501					
22. Documentation of Restorative Care	.546					
23. Use of Programmatic Resources	.493	7. Rehabilitative & Restorative Care	.520	3. Professional Services	.502	
33. Encouragement of Patient Activity	.588					
38. Community Resources	.478					
13. Medical & Professional Support Staffing	.423					
16. Nursing Supervision	.635					
18. Nursing Policies	.493					
20. Medications/Practices	.387	8. Health Care Services	.460			
21. Medications/Safety	.318					
37. Professionalism of Staff	.517					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 8

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/16/73
09 - 12	11/14/73

RESIDENT NEED CRITERION	SATISFACTION SCORES HIGH NEED	LOW NEED
8. Physical Competence/Hearing	66.6%	
9. Physical Competence/Vision	91.6	
24. Physical Competence/Mobility	100.0	
25. Physical Competence/Eating	83.3	
2. Self Care/Grooming	100.0	
3. Change in Physical Status	83.3	
20. Geriatric Rating Scale (GRS)	100.0	
26. Self Care/General		
5. Special Nursing Care/Decubiti	91.6	
6. Special Nursing Care/Catheters	91.6	
7. Special Nursing Care/Bowel & Bladder	100.0	
27. General Nursing Care	100.0	
4. Change in Mental Status	83.3	100.0%
12. Night-time Behavior	75.0	100.0
13. Anti-social Behavior	91.6	100.0
15. Need for Psychiatric Care	91.6	100.0
1. Communication Skills	83.3	100.0
10. Memory Span	100.0	100.0
11. Social Interaction	100.0	91.6
16. Situational Memory	100.0	83.3
19. Social Judgment	100.0	91.6
17. Verbal Competence	100.0	83.3
21. Object Identification	100.0	91.6
22. Digit Span/Forward	91.6	100.0
23. Digit Span/Backward	100.0	100.0
28. Verbal Intelligence Estimate	100.0	83.3
18. Spatial Orientation	83.3	100.0
14. Satisfaction with Facility	100.0	

NOTE

Scores are percentages based on 12 residents, or approximately a 11 per cent sample of the census.

FACILITY PROFILE REPORT 1: QUALITY SCORES

FACILITY ID: 9

DATE OF SURVEY: 11/7/73 SURVEYOR IDs: 1 AND 4 LOCATION: Suburban OWNERSHIP: Proprietary BED SIZE/SKILLED: 200 ; ICF: ; SHELTERED:

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.472					
2. View from Windows	.663					
9. Orderliness/Personal & Private Spaces	.383	1. Enriched Personalized Environment	.486			
5. Building Complexity	.431					
29. Staff Tolerance/Somatic	.483					
30. Staff Tolerance/Behavior	.470					
31. Staff Recognition	.554	2. Staff-Resident Relationships	.514	1. Psychosocial Environment	.477	
32. Residents' Openness with Staff	.655					
34. Group Spirit	.385					
25. Activity Level	.470					
26. Structured Activities	.434					
27. Informal Activities	.385	3. Involvement in Activities	.433			
28. Resident Interaction	.423					
1. Illumination	.539					
3. Condition of Plant	.643					
6. Unpleasant Odors	.547					
7. Cleanliness	.626	4. Physical Plant	.581			
8. Maintenance Practices	.600					
24. General Attractiveness	.536					
11. Food Service/Cleanliness	.445			2. Physical Plant & Personal Services	.541	.512
12. Food Service/Attractiveness	.511					
14. Residents' Grooming & Personal Care	.574	5. Personal Services	.502			
15. Nursing Service Staffing Levels	.504					
10. Food Service Personnel	.519					
19. Pharmacy Facilities	.516					
35. Inservice/Use of Professional Resources	.528	6. Administrative & Support	.530			
36. Inservice/For all Staff	.481					
39. Administrative Resources	.646					
40. Patient Records	.439					
17. Restorative Nursing Practice	.474					
22. Documentation of Restorative Care	.542					
23. Use of Programmatic Resources	.441	7. Rehabilitative & Restorative Care	.456	3. Professional Services	.518	
33. Encouragement of Patient Activity	.375					
38. Community Resources	.498					
13. Medical & Professional Support Staffing	.462					
16. Nursing Supervision	.646					
18. Nursing Policies	.581					
20. Medications/Practices	.680	8. Health Care Services	.568			
21. Medications/Safety	.646					
37. Professionalism of Staff	.424					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 9

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/2/73
09 - 16	10/4/73
17 - 20	11/7/73

RESIDENT NEED CRITERION		SATISFACTION SCORES HIGH NEED	LOW NEED
8.	Physical Competence/Hearing	69.9%	
9.	Physical Competence/Vision	79.9	
24.	Physical Competence/Mobility	69.9	
25.	Physical Competence/Eating	79.9	
		89.9	
2.	Self Care/Grooming	84.9	
3.	Change in Physical Status	-	
20.	Geriatric Rating Scale (GRS)	84.9	
26.	Self Care/General	84.9	
5.	Special Nursing Care/Decubiti	79.9	
6.	Special Nursing Care/Catheters	84.9	
7.	Special Nursing Care/Bowel & Bladder	100.0	
27.	General Nursing Care	75.0	94.9
4.	Change in Mental Status	75.0	100.0
12.	Night-time Behavior	79.9	100.0
13.	Anti-social Behavior	64.9	100.0
15.	Need for Psychiatric Care	84.9	100.0
1.	Communication Skills	100.0	100.0
10.	Memory Span	79.9	84.9
11.	Social Interaction	100.0	89.9
16.	Situational Memory	100.0	89.9
19.	Social Judgment	100.0	84.9
17.	Verbal Competence	100.0	89.9
21.	Object Identification	75.0	100.0
22.	Digit Span/Forward	100.0	100.0
23.	Digit Span/Backward	100.0	84.9
28.	Verbal Intelligence Estimate	94.9	100.0
18.	Spatial Orientation	100.0	
14.	Satisfaction with Facility		

NOTE

Scores are percentages based on 20 residents, or approximately a 11 per cent sample of the census.

FACILITY PROFILE REPORT I: QUALITY SCORES

FACILITY ID: 10

DATE OF SURVEY: 11/6/73 SURVEYOR IDs: 1 AND 4 LOCATION: Suburban OWNERSHIP: Proprietary BED SIZE/SKILLED: 90 ; ICF: ; SHELTERED:

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.371					
2. View from Windows	.321					
9. Orderliness/Personal & Private Spaces	.413	1. Enriched Personalized Environment	.442			
5. Building Complexity	.668					
29. Staff Tolerance/Somatic	.624					
30. Staff Tolerance/Behavior	.612					
31. Staff Recognition	.556	2. Staff-Resident Relationships	.572	1. Psychosocial Environment	.457	
32. Residents' Openness with Staff	.479					
34. Group Spirit	.617					
25. Activity Level	.302					
26. Structured Activities	.369					
27. Informal Activities	.332	3. Involvement in Activities	.357			
28. Resident Interaction	.426					
1. Illumination	.330					
3. Condition of Plant	.427					
6. Unpleasant Odors	.466					
7. Cleanliness	.459	4. Physical Plant	.443			
8. Maintenance Practices	.482					
24. General Attractiveness	.449					
11. Food Service/Cleanliness	.555			2. Physical Plant & Personal Services	.451	.457
12. Food Service/Attractiveness	.428					
14. Residents' Grooming & Personal Care	.488	5. Personal Services	.460			
15. Nursing Service Staffing Levels	.385					
10. Food Service Personnel	.472					
19. Pharmacy Facilities	.440					
35. Inservice/Use of Professional Resources	.572	6. Administrative & Support	.456			
36. Inservice/For all Staff	.367					
39. Administrative Resources	.421					
40. Patient Records	.412					
17. Restorative Nursing Practice	.448					
22. Documentation of Restorative Care	.633					
23. Use of Programmatic Resources	.360	7. Rehabilitative & Restorative Car	.433	3. Professional Services	.463	
33. Encouragement of Patient Activity	.387					
38. Community Resources	.424					
13. Medical & Professional Support Staffing	.545					
16. Nursing Supervision	.508					
18. Nursing Policies	.394					
20. Medications/Practices	.680	8. Health Care Services	.501			
21. Medications/Safety	.646					
37. Professionalism of Staff	.336					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 10

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/2/73
09 - 16	10/4/73
17 - 20	11/6/73

RESIDENT NEED CRITERION	SATISFACTION SCORES HIGH NEED	LOW NEED
8. Physical Competence/Hearing	89.9%	
9. Physical Competence/Vision	84.9	
24. Physical Competence/Mobility	75.0	
25. Physical Competence/Eating	69.9	
2. Self Care/Grooming	64.9	
3. Change in Physical Status	94.9	
20. Geriatric Rating Scale (GRS)	-	
26. Self Care/General	59.9	
5. Special Nursing Care/Decubiti	84.9	
6. Special Nursing Care/Catheters	84.9	
7. Special Nursing Care/Bowel & Bladder	50.0	
27. General Nursing Care	94.9	
4. Change in Mental Status	84.9	100.0%
12. Night-time Behavior	79.9	100.0
13. Anti-social Behavior	89.9	100.0
15. Need for Psychiatric Care	75.0	100.0
1. Communication Skills	64.9	100.0
10. Memory Span	100.0	100.0
11. Social Interaction	79.9	59.9
16. Situational Memory	100.0	64.9
19. Social Judgment	100.0	69.9
17. Verbal Competence	100.0	79.9
21. Object Identification	100.0	89.9
22. Digit Span/Forward	84.9	100.0
23. Digit Span/Backward	100.0	100.0
28. Verbal Intelligence Estimate	100.0	79.9
18. Spatial Orientation	89.9	79.9
14. Satisfaction with Facility	94.9	

NOTE

Scores are percentages based on 20 residents, or approximately a 23 per cent sample of the census.

FACILITY PROFILE REPORT I: QUALITY SCORES

FACILITY ID: 11

DATE OF SURVEY. 11/15/73 SURVEYOR IDs: 2 AND 3 LOCATION: Small Town/Rural OWNERSHIP: Public BED SIZE/SKILLED: ; ICF: 80 ; SHELTERED:

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.573					
2. View from Windows	.321					
9. Orderliness/Personal & Private Spaces	.712	1. Enriched Personalized Environment	.536			
5. Building Complexity	.540					
29. Staff Tolerance/Somatic	.471					
30. Staff Tolerance/Behavior	.593					
31. Staff Recognition	.556	2. Staff-Resident Relationships	.553	1. Psychosocial Environment	.527	
32. Residents' Openness with Staff	.536					
34. Group Spirit	.637					
25. Activity Level	.595					
26. Structured Activities	.482					
27. Informal Activities	.359	3. Involvement in Activities	.493			
28. Resident Interaction	.465					
1. Illumination	.469					
3. Condition of Plant	.188					
6. Unpleasant Odors	.563					
7. Cleanliness	.481	4. Physical Plant	.483			
8. Maintenance Practices	.536					
24. General Attractiveness	.577					
11. Food Service/Cleanliness	.546			2. Physical Plant & Personal Services	.524	.497
12. Food Service/Attractiveness	.525					
14. Residents' Grooming & Personal Care	.508	5. Personal Services	.566			
15. Nursing Service Staffing Levels	.680					
10. Food Service Personnel	.425					
19. Pharmacy Facilities	.440					
35. Inservice/Use of Professional Resources	.286	6. Administrative & Support	.335			
36. Inservice/For all Staff	.282					
39. Administrative Resources	.325					
40. Patient Records	.362					
17. Restorative Nursing Practice	.699					
22. Documentation of Restorative Care	.442					
23. Use of Programmatic Resources	.603	7. Rehabilitative & Restorative Care	.579	3. Professional Services	.442	
33. Encouragement of Patient Activity	.633					
38. Community Resources	.451					
13. Medical & Professional Support Staffing	.384					
16. Nursing Supervision	.316					
18. Nursing Policies	.449					
20. Medications/Practices	.392	8. Health Care Services	.412			
21. Medications/Safety	.416					
37. Professionalism of Staff	.475					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 11

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/17/73
09 - 12	11/15/73

RESIDENT NEED CRITERION	SATISFACTION SCORES HIGH NEED	LOW NEED
8. Physical Competence/Hearing	83.3%	
9. Physical Competence/Vision	75.0	
24. Physical Competence/Mobility	100.0	
25. Physical Competence/Eating	91.6	
2. Self Care/Grooming	100.0	
3. Change in Physical Status	100.0	
20. Geriatric Rating Scale (GRS)		
26. Self Care/General	100.0	
5. Special Nursing Care/Decubiti	100.0	
6. Special Nursing Care/Catheters	100.0	
7. Special Nursing Care/Bowel & Bladder	100.0	
27. General Nursing Care	66.6	
4. Change in Mental Status	83.3	100.0%
12. Night-time Behavior	91.6	100.0
13. Anti-social Behavior	100.0	100.0
15. Need for Psychiatric Care	91.6	100.0
1. Communication Skills	91.6	100.0
10. Memory Span	100.0	100.0
11. Social Interaction	100.0	100.0
16. Situational Memory	100.0	75.0
19. Social Judgment	100.0	83.3
17. Verbal Competence	100.0	83.3
21. Object Identification	100.0	83.3
22. Digit Span/Forward	100.0	100.0
23. Digit Span/Backward	100.0	100.0
28. Verbal Intelligence Estimate	100.0	83.3
18. Spatial Orientation	91.6	100.0
14. Satisfaction with Facility	100.0	

NOTE

Scores are percentages based on 12 residents, or approximately a 18 per cent sample of the census.

FACILITY PROFILE REPORT 1: QUALITY SCORES

FACILITY ID: 12

DATE OF SURVEY: 11/15/73 SURVEYOR IDs: 1 AND 4 LOCATION: Small Town/Rural OWNERSHIP: Voluntary BED SIZE/SKILLED: ; ICF: 50 ; SHELTERED: 100

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.674					
2. View from Windows	.663					
9. Orderliness/Personal & Private Spaces	.472	1. Enriched Personalized Environment	.558			
5. Building Complexity	.425					
29. Staff Tolerance/Somatic	.431					
30. Staff Tolerance/Behavior	.559					
31. Staff Recognition	.554	2. Staff-Resident Relationships	.495	1. Psychosocial Environment	.552	
32. Residents' Openness with Staff	.405					
34. Group Spirit	.586					
25. Activity Level	.653					
26. Structured Activities	.625					
27. Informal Activities	.613	3. Involvement in Activities	.604			
28. Resident Interaction	.520					
1. Illumination	.538					
3. Condition of Plant	.694					
6. Unpleasant Odors	.673					
7. Cleanliness	.663	4. Physical Plant	.663			
8. Maintenance Practices	.675					
24. General Attractiveness	.701					
11. Food Service/Cleanliness	.625			2. Physical Plant & Personal Services	.632	.591
12. Food Service/Attractiveness	.588					
14. Residents' Grooming & Personal Care	.749	5. Personal Services	.601			
15. Nursing Service Staffing Levels	.489					
10. Food Service Personnel	.753					
19. Pharmacy Facilities	.447					
35. Inservice/Use of Professional Resources	.623	6. Administrative & Support	.622			
36. Inservice/For all Staff	.773					
39. Administrative Resources	.598					
40. Patient Records	.463					
17. Restorative Nursing Practice	.641					
22. Documentation of Restorative Care	.553					
23. Use of Programmatic Resources	.631	7. Rehabilitative & Restorative Car	.649	3. Professional Services	.591	
33. Encouragement of Patient Activity	.693					
38. Community Resources	.692					
13. Medical & Professional Support Staffing	.462					
16. Nursing Supervision	.388					
18. Nursing Policies	.650					
20. Medications/Practices	.421	8. Health Care Services	.504			
21. Medications/Safety	.400					
37. Professionalism of Staff	.533					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 12

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/18/73
09 - 12	11/15/73

RESIDENT NEED CRITERION	SATISFACTION SCORES HIGH NEED	LOW NEED
8. Physical Competence/Hearing	83.3%	
9. Physical Competence/Vision	91.6	
24. Physical Competence/Mobility	100.0	
25. Physical Competence/Eating	91.6	
2. Self Care/Grooming	100.0	
3. Change in Physical Status	100.0	
20. Geriatric Rating Scale (GRS)		
26. Self Care/General	100.0	
5. Special Nursing Care/Decubiti	100.0	
6. Special Nursing Care/Catheters	100.0	
7. Special Nursing Care/Bowel & Bladder	100.0	
27. General Nursing Care	100.0	
4. Change in Mental Status	100.0	100.0%
12. Night-time Behavior	91.6	91.6
13. Anti-social Behavior	100.0	100.0
15. Need for Psychiatric Care	100.0	100.0
1. Communication Skills	100.0	100.0
10. Memory Span	100.0	100.0
11. Social Interaction	100.0	100.0
16. Situational Memory	100.0	83.3
19. Social Judgment	100.0	91.6
17. Verbal Competence	100.0	100.0
21. Object Identification	100.0	100.0
22. Digit Span/Forward	100.0	100.0
23. Digit Span/Backward	100.0	100.0
28. Verbal Intelligence Estimate	100.0	91.6
18. Spatial Orientation	100.0	100.0
14. Satisfaction with Facility	100.0	

NOTE

Scores are percentages based on 12 residents, or approximately a 09 per cent sample of the census.

FACILITY PROFILE REPORT I: QUALITY SCORES

FACILITY ID: 13

DATE OF SURVEY. 11/14/73 SURVEYOR IDs: 1 AND 4 LOCATION: Small Town/Rural OWNERSHIP: Voluntary BED SIZE/SKILLED: ; ICF: 20 ; SHELTERED: 50

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.719					
2. View from Windows	.663					
9. Orderliness/Personal & Private Spaces	.449	1. Enriched Personalized Environment	.597			
5. Building Complexity	.560					
29. Staff Tolerance/Somatic	.600					
30. Staff Tolerance/Behavior	.374					
31. Staff Recognition	.556	2. Staff-Resident Relationships	.505	1. Psychosocial Environment	.602	
32. Residents' Openness with Staff	.589					
34. Group Spirit	.378					
25. Activity Level	.743					
26. Structured Activities	.790					
27. Informal Activities	.444	3. Involvement in Activities	.704			
28. Resident Interaction	.707					
1. Illumination	.539					
3. Condition of Plant	.694					
6. Unpleasant Odors	.757					
7. Cleanliness	.708	4. Physical Plant	.707			
8. Maintenance Practices	.776					
24. General Attractiveness	.701					
11. Food Service/Cleanliness	.568			2. Physical Plant & Personal Services	.651	.602
12. Food Service/Attractiveness	.602					
14. Residents' Grooming & Personal Care	.749	5. Personal Services	.595			
15. Nursing Service Staffing Levels	.416					
10. Food Service Personnel	.680					
19. Pharmacy Facilities	.377					
35. Inservice/Use of Professional Resources	.585	6. Administrative & Support	.555			
36. Inservice/For all Staff	.735					
39. Administrative Resources	.501					
40. Patient Records	.365					
17. Restorative Nursing Practice	.680					
22. Documentation of Restorative Care	.514					
23. Use of Programmatic Resources	.576	7. Rehabilitative & Restorative Car	.667	3. Professional Services	.555	
33. Encouragement of Patient Activity	.668					
38. Community Resources	.661					
13. Medical & Professional Support Staffing	.216					
16. Nursing Supervision	.135					
18. Nursing Policies	.546					
20. Medications/Practices	.397	8. Health Care Services	.444			
21. Medications/Safety	.687					
37. Professionalism of Staff	.634					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 13

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/17/73
09 - 12	11/14/73

	RESIDENT NEED CRITERION	SATISFACTION SCORES HIGH NEED	LOW NEED
8.	Physical Competence/Hearing	91.6%	
9.	Physical Competence/Vision	83.3	
24.	Physical Competence/Mobility	100.0	
25.	Physical Competence/Eating	100.0	
2.	Self Care/Grooming	100.0	
3.	Change in Physical Status	100.0	
20.	Geriatric Rating Scale (GRS)		
26.	Self Care/General	100.0	
5.	Special Nursing Care/Decubiti	100.0	
6.	Special Nursing Care/Catheters	100.0	
7.	Special Nursing Care/Bowel & Bladder	100.0	
27.	General Nursing Care	66.6	
4.	Change in Mental Status	100.0	100.0%
12.	Night-time Behavior	100.0	100.0
13.	Anti-social Behavior	91.6	100.0
15.	Need for Psychiatric Care	100.0	100.0
1.	Communication Skills	100.0	100.0
10.	Memory Span	100.0	100.0
11.	Social Interaction	100.0	100.0
16.	Situational Memory	100.0	100.0
19.	Social Judgment	100.0	100.0
17.	Verbal Competence	100.0	100.0
21.	Object Identification	100.0	100.0
22.	Digit Span/Forward	100.0	100.0
23.	Digit Span/Backward	100.0	100.0
28.	Verbal Intelligence Estimate	100.0	100.0
18.	Spatial Orientation	100.0	
14.	Satisfaction with Facility		

NOTE

Scores are percentages based on 12 residents, or approximately a 15 per cent sample of the census.

FACILITY PROFILE REPORT I: QUALITY SCORES

FACILITY ID: 14

DATE OF SURVEY: 11/16/73 SURVEYOR IDs: 1 AND LOCATION: Small Town/Rural OWNERSHIP: Proprietary BED SIZE/SKILLED: ; ICF: 200 ; SHELTERED:

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.435					
2. View from Windows	.150					
9. Orderliness/Personal & Private Spaces	.635	1. Enriched Personalized Environment	.445			
5. Building Complexity	.562					
29. Staff Tolerance/Somatic	.520					
30. Staff Tolerance/Behavior	.488					
31. Staff Recognition	.534	2. Staff-Resident Relationships	.540	1. Psychosocial Environment	.467	
32. Residents' Openness with Staff	.655					
34. Group Spirit	.475					
25. Activity Level	.352					
26. Structured Activities	.387					
27. Informal Activities	.459	3. Involvement in Activities	.416			
28. Resident Interaction	.509					
1. Illumination	.528					
3. Condition of Plant	.618					
6. Unpleasant Odors	.335					
7. Cleanliness	.381	4. Physical Plant	.417			
8. Maintenance Practices	.403					
24. General Attractiveness	.349					
11. Food Service/Cleanliness	.375			2. Physical Plant & Personal Services	.379	.432
12. Food Service/Attractiveness	.434					
14. Residents' Grooming & Personal Care	.317	5. Personal Services	.342			
15. Nursing Service Staffing Levels	.231					
10. Food Service Personnel	.495					
19. Pharmacy Facilities	.440					
35. Inservice/Use of Professional Resources	.372	6. Administrative & Support	.449			
36. Inservice/For all Staff	.431					
39. Administrative Resources	.488					
40. Patient Records	.525					
17. Restorative Nursing Practice	.423					
22. Documentation of Restorative Care	.532					
23. Use of Programmatic Resources	.387	7. Rehabilitative & Restorative Car	.455	3. Professional Services	.451	
33. Encouragement of Patient Activity	.452					
38. Community Resources	.521					
13. Medical & Professional Support Staffing	.398					
16. Nursing Supervision	.377					
18. Nursing Policies						
20. Medications/Practices	.594	8. Health Care Services	.449			
21. Medications/Safety	.583					
37. Professionalism of Staff	.292					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 14

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/16/73
09 - 12	11/16/73

RESIDENT NEED CRITERION	SATISFACTION SCORES HIGH NEED	LOW NEED
8. Physical Competence/Hearing	83.3%	
9. Physical Competence/Vision	75.0	
24. Physical Competence/Mobility	66.6	
25. Physical Competence/Eating	91.6	
2. Self Care/Grooming	50.0	
3. Change in Physical Status	100.0	
20. Geriatric Rating Scale (GRS)		
26. Self Care/General	83.3	
5. Special Nursing Care/Decubiti	100.0	
6. Special Nursing Care/Catheters	16.6	
7. Special Nursing Care/Bowel & Bladder	75.0	
27. General Nursing Care	0.0	
4. Change in Mental Status	100.0	100.0%
12. Night-time Behavior	91.6	100.0
13. Anti-social Behavior	66.6	100.0
15. Need for Psychiatric Care	33.3	100.0
1. Communication Skills	50.0	100.0
10. Memory Span	100.0	100.0
11. Social Interaction	41.6	91.6
16. Situational Memory	100.0	91.6
19. Social Judgment	100.0	91.6
17. Verbal Competence	58.3	91.6
21. Object Identification	75.0	91.6
22. Digit Span/Forward	75.0	100.0
23. Digit Span/Backward	100.0	100.0
28. Verbal Intelligence Estimate	100.0	91.6
18. Spatial Orientation	75.0	100.0
14. Satisfaction with Facility	75.0	

NOTE

Scores are percentages based on 12 residents, or approximately a 07 per cent sample of the census.

FACILITY PROFILE REPORT 1: QUALITY SCORES

FACILITY ID: 15

DATE OF SURVEY: 11/20/73 SURVEYOR IDs: 1 AND 5 LOCATION: Suburban OWNERSHIP: Proprietary BED SIZE/SKILLED: 70 ; ICF: 60 ; SHELTERED:

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.433					
2. View from Windows	.492					
9. Orderliness/Personal & Private Spaces	.578	1. Enriched Personalized Environment	.529			
5. Building Complexity	.616					
29. Staff Tolerance/Somatic	.548					
30. Staff Tolerance/Behavior	.476					
31. Staff Recognition	.523	2. Staff-Resident Relationships	.523	1. Psychosocial Environment	.532	
32. Residents' Openness with Staff	.552					
34. Group Spirit	.507					
25. Activity Level	.484					
26. Structured Activities	.625					
27. Informal Activities	.540	3. Involvement in Activities	.545			
28. Resident Interaction	.525					
1. Illumination	.384					
3. Condition of Plant	.450					
6. Unpleasant Odors	.342					
7. Cleanliness	.334	4. Physical Plant	.385			
8. Maintenance Practices	.458					
24. General Attractiveness	.373					
11. Food Service/Cleanliness	.703			2. Physical Plant & Personal Services	.441	.501
12. Food Service/Attractiveness	.496					
14. Residents' Grooming & Personal Care	.364	5. Personal Services	.498			
15. Nursing Service Staffing Levels	.389					
10. Food Service Personnel	.698					
19. Pharmacy Facilities	.440					
35. Inservice/Use of Professional Resources	.650	6. Administrative & Support	.538			
36. Inservice/For all Staff	.342					
39. Administrative Resources	.564					
40. Patient Records	.455					
17. Restorative Nursing Practice	.481					
22. Documentation of Restorative Care	.534					
23. Use of Programmatic Resources	.401	7. Rehabilitative & Restorative Care	.491	3. Professional Services	.530	
33. Encouragement of Patient Activity	.527					
38. Community Resources	.529					
13. Medical & Professional Support Staffing	.489					
16. Nursing Supervision	.635					
18. Nursing Policies	.579					
20. Medications/Practices	.680	8. Health Care Services	.563			
21. Medications/Safety	.597					
37. Professionalism of Staff	.405					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 15

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/25/73
09 - 12	11/20/73

	RESIDENT NEED CRITERION	SATISFACTION SCORES HIGH NEED	LOW NEED
8.	Physical Competence/Hearing	100.0%	
9.	Physical Competence/Vision	91.6	
24.	Physical Competence/Mobility	100.0	
25.	Physical Competence/Eating	83.3	
2.	Self Care/Grooming	66.6	
3.	Change in Physical Status	91.6	
20.	Geriatric Rating Scale (GRS)		
26.	Self Care/General	75.0	
5.	Special Nursing Care/Decubiti	75.0	
6.	Special Nursing Care/Catheters	75.0	
7.	Special Nursing Care/Bowel & Bladder	75.0	
27.	General Nursing Care	100.0	
4.	Change in Mental Status	91.6	100.0%
12.	Night-time Behavior	91.6	100.0
13.	Anti-social Behavior	75.0	100.0
15.	Need for Psychiatric Care	91.6	100.0
1.	Communication Skills	83.3	100.0
10.	Memory Span	100.0	100.0
11.	Social Interaction	83.3	100.0
16.	Situational Memory	100.0	100.0
19.	Social Judgment	100.0	100.0
17.	Verbal Competence	100.0	100.0
21.	Object Identification	100.0	100.0
22.	Digit Span/Forward	100.0	100.0
23.	Digit Span/Backward	100.0	100.0
28.	Verbal Intelligence Estimate	100.0	100.0
18.	Spatial Orientation	83.3	100.0
14.	Satisfaction with Facility	100.0	

NOTE

Scores are percentages based on 12 residents, or approximately a 09 per cent sample of the census.

FACILITY PROFILE REPORT I: QUALITY SCORES

FACILITY ID: 16

DATE OF SURVEY: 11/13/73 SURVEYOR IDs: 1 AND 4 LOCATION: Small Town/Rural OWNERSHIP: Proprietary BED SIZE/SKILLED: ; ICF: 50 ; SHELTERED:

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.590					
2. View from Windows	.444					
9. Orderliness/Personal & Private Spaces	.416	1. Enriched Personalized Environment	.540			
5. Building Complexity	.711					
29. Staff Tolerance/Somatic	.274					
30. Staff Tolerance/Behavior	.154					
31. Staff Recognition	.556	2. Staff-Resident Relationships	.392	1. Psychosocial Environment	.535	
32. Residents' Openness with Staff	.487					
34. Group Spirit	.500					
25. Activity Level	.689					
26. Structured Activities	.742					
27. Informal Activities	.408	3. Involvement in Activities	.674			
28. Resident Interaction	.729					
1. Illumination	.580					
3. Condition of Plant	.482					
6. Unpleasant Odors	.685					
7. Cleanliness	.653	4. Physical Plant	.646			
8. Maintenance Practices	.704					
24. General Attractiveness	.708					
11. Food Service/Cleanliness	.557			2. Physical Plant & Personal Services	.605	.600
12. Food Service/Attractiveness	.557					
14. Residents' Grooming & Personal Care	.728	5. Personal Services	.564			
15. Nursing Service Staffing Levels	.471					
10. Food Service Personnel	.533					
19. Pharmacy Facilities	.440					
35. Inservice/Use of Professional Resources	.686	6. Administrative & Support	.637			
36. Inservice/For all Staff	.795					
39. Administrative Resources	.748					
40. Patient Records	.404					
17. Restorative Nursing Practice	.793					
22. Documentation of Restorative Care	.671					
23. Use of Programmatic Resources	.701	7. Rehabilitative & Restorative Car	.716	3. Professional Services	.662	
33. Encouragement of Patient Activity	.737					
38. Community Resources	.655					
13. Medical & Professional Support Staffing	.357					
16. Nursing Supervision	.573					
18. Nursing Policies	.788					
20. Medications/Practices	.680	8. Health Care Services	.635			
21. Medications/Safety	.687					
37. Professionalism of Staff	.628					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 16

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/19/73
09 - 12	11/13/73

NOTE

Scores are percentages based on 12 residents, or approximately a 24 per cent sample of the census.

	RESIDENT NEED CRITERION	SATISFACTION SCORES HIGH NEED	LOW NEED
		75.5%	
8.	Physical Competence/Hearing	75.5	
9.	Physical Competence/Vision	100.0	
24.	Physical Competence/Mobility	91.6	
25.	Physical Competence/Eating		
		100.0	
2.	Self Care/Grooming	100.0	
3.	Change in Physical Status		
20.	Geriatric Rating Scale (GRS)	100.0	
26.	Self Care/General		
		91.6	
5.	Special Nursing Care/Decubiti	91.6	
6.	Special Nursing Care/Catheters	100.0	
7.	Special Nursing Care/Bowel & Bladder	100.0	
27.	General Nursing Care		
		100.0	100.0%
4.	Change in Mental Status	100.0	100.0
12.	Night-time Behavior	100.0	100.0
13.	Anti-social Behavior	100.0	100.0
15.	Need for Psychiatric Care		
		100.0	100.0
1.	Communication Skills	100.0	100.0
10.	Memory Span	100.0	100.0
11.	Social Interaction	100.0	100.0
16.	Situational Memory	100.0	91.6
19.	Social Judgment		
		100.0	100.0
17.	Verbal Competence	100.0	100.0
21.	Object Identification	100.0	100.0
22.	Digit Span/Forward	100.0	100.0
23.	Digit Span/Backward	100.0	100.0
28.	Verbal Intelligence Estimate		
		100.0	100.0
18.	Spatial Orientation		
		100.0	
14.	Satisfaction with Facility		

FACILITY PROFILE REPORT I: QUALITY SCORES

FACILITY ID: 17

DATE OF SURVEY: 11/19/73 SURVEYOR IDs: 1 AND 4 LOCATION: Urban OWNERSHIP: Proprietary BED SIZE/SKILLED: 30 ; ICF: 40 ; SHELTERED:

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.398					
2. View from Windows	.328					
9. Orderliness/Personal & Private Spaces	.602	1. Enriched Personalized Environment	.503			
5. Building Complexity	.685					
29. Staff Tolerance/Somatic	.507					
30. Staff Tolerance/Behavior	.618					
31. Staff Recognition	.556	2. Staff-Resident Relationships	.462	1. Psychosocial Environment	.443	
32. Residents' Openness with Staff	.229					
34. Group Spirit	.507					
25. Activity Level	.306					
26. Structured Activities	.441					
27. Informal Activities	.332	3. Involvement in Activities	.366			
28. Resident Interaction	.367					
1. Illumination	.286					
3. Condition of Plant	.295					
6. Unpleasant Odors	.281					
7. Cleanliness	.275	4. Physical Plant	.328			
8. Maintenance Practices	.430					
24. General Attractiveness	.392					
11. Food Service/Cleanliness	.373			2. Physical Plant & Personal Services	.373	.414
12. Food Service/Attractiveness	.403					
14. Residents' Grooming & Personal Care	.357	5. Personal Services	.418			
15. Nursing Service Staffing Levels	.532					
10. Food Service Personnel	.404					
19. Pharmacy Facilities	.440					
35. Inservice/Use of Professional Resources	.452	6. Administrative & Support	.430			
36. Inservice/For all Staff	.469					
39. Administrative Resources	.446					
40. Patient Records	.337					
17. Restorative Nursing Practice	.398					
22. Documentation of Restorative Care	.509					
23. Use of Programmatic Resources	.294	7. Rehabilitative & Restorative Car	.398	3. Professional Services	.427	
33. Encouragement of Patient Activity	.415					
38. Community Resources	.420					
13. Medical & Professional Support Staffing	.572					
16. Nursing Supervision	.370					
18. Nursing Policies	.358					
20. Medications/Practices	.484	8. Health Care Services	.453			
21. Medications/Safety	.637					
37. Professionalism of Staff	.395					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 17

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/10/73
09 - 12	11/19/73

RESIDENT NEED CRITERION	SATISFACTION SCORES HIGH NEED	LOW NEED
8. Physical Competence/Hearing	91.6%	
9. Physical Competence/Vision	66.6	
24. Physical Competence/Mobility	100.0	
25. Physical Competence/Eating	91.6	
2. Self Care/Grooming	75.0	
3. Change in Physical Status	100.0	
20. Geriatric Rating Scale (GRS)	66.6	
26. Self Care/General		
5. Special Nursing Care/Decubiti	91.6	
6. Special Nursing Care/Catheters	75.0	
7. Special Nursing Care/Bowel & Bladder	50.0	
27. General Nursing Care	75.0	
4. Change in Mental Status	100.0	100.0%
12. Night-time Behavior	91.6	100.0
13. Anti-social Behavior	91.6	100.0
15. Need for Psychiatric Care	91.6	100.0
1. Communication Skills	66.6	100.0
10. Memory Span	100.0	100.0
11. Social Interaction	100.0	33.3
16. Situational Memory	100.0	75.0
19. Social Judgment	100.0	75.0
17. Verbal Competence	100.0	83.3
21. Object Identification	100.0	75.0
22. Digit Span/Forward	58.3	100.0
23. Digit Span/Backward	100.0	100.0
28. Verbal Intelligence Estimate	100.0	83.3
18. Spatial Orientation	75.0	91.6
14. Satisfaction with Facility	83.3	

NOTE

Scores are percentages based on 12 residents, or approximately a 16 per cent sample of the census.

FACILITY PROFILE REPORT 1: QUALITY SCORES

FACILITY ID: 18

DATE OF SURVEY: 11/19/73 SURVEYOR IDs: 2 AND 3 LOCATION: Urban OWNERSHIP: Proprietary BED SIZE/SKILLED: ; ICF: 60 ; SHELTERED:

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.425					
2. View from Windows	.432					
9. Orderliness/Personal & Private Spaces	.467	1. Enriched Personalized Environment	.472			
5. Building Complexity	.568					
29. Staff Tolerance/Somatic	.459					
30. Staff Tolerance/Behavior	.504					
31. Staff Recognition	.556	2. Staff-Resident Relationships	.470	1. Psychosocial Environment	.414	
32. Residents' Openness with Staff	.411					
34. Group Spirit	.474					
25. Activity Level	.293					
26. Structured Activities	.270					
27. Informal Activities	.422	3. Involvement in Activities	.300			
28. Resident Interaction	.277					
1. Illumination	.106					
3. Condition of Plant	.257					
6. Unpleasant Odors	.314					
7. Cleanliness	.250	4. Physical Plant	.260			
8. Maintenance Practices	.291					
24. General Attractiveness	.284					
11. Food Service/Cleanliness	.311			2. Physical Plant & Personal Services	.371	.385
12. Food Service/Attractiveness	.335					
14. Residents' Grooming & Personal Care	.354	5. Personal Services	.482			
15. Nursing Service Staffing Levels	.919					
10. Food Service Personnel	.473					
19. Pharmacy Facilities	.440					
35. Inservice/Use of Professional Resources	.286	6. Administrative & Support	.359			
36. Inservice/For all Staff	.480					
39. Administrative Resources	.263					
40. Patient Records	.343					
17. Restorative Nursing Practice	.457					
22. Documentation of Restorative Care	.316					
23. Use of Programmatic Resources	.313	7. Rehabilitative & Restorative Car	.375	3. Professional Services	.371	
33. Encouragement of Patient Activity	.388					
38. Community Resources	.373					
13. Medical & Professional Support Staffing	.545					
16. Nursing Supervision	.364					
18. Nursing Policies	.226					
20. Medications/Practices	.392	8. Health Care Services	.380			
21. Medications/Safety	.402					
37. Professionalism of Staff	.489					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 18

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/12/73
09 - 12	11/19/73

	RESIDENT NEED CRITERION	SATISFACTION SCORES HIGH NEED	LOW NEED
8.	Physical Competence/Hearing	83.3%	
9.	Physical Competence/Vision	66.6	
24.	Physical Competence/Mobility	75.0	
25.	Physical Competence/Eating	91.6	
		75.0	
2.	Self Care/Grooming	83.3	
3.	Change in Physical Status		
20.	Geriatric Rating Scale (GRS)	83.3	
26.	Self Care/General		
		100.0	
5.	Special Nursing Care/Decubiti	100.0	
6.	Special Nursing Care/Catheters	66.6	
7.	Special Nursing Care/Bowel & Bladder	100.0	
27.	General Nursing Care		
		91.6	100.0%
4.	Change in Mental Status	66.6	100.0
12.	Night-time Behavior	58.3	100.0
13.	Anti-social Behavior	50.0	100.0
15.	Need for Psychiatric Care		
		75.0	100.0
1.	Communication Skills	100.0	100.0
10.	Memory Span	91.6	33.3
11.	Social Interaction	100.0	75.0
16.	Situational Memory	100.0	66.6
19.	Social Judgment		
		91.6	83.3
17.	Verbal Competence	83.3	91.6
21.	Object Identification	100.0	100.0
22.	Digit Span/Forward	100.0	100.0
23.	Digit Span/Backward	100.0	83.3
28.	Verbal Intelligence Estimate		
		83.3	100.0
18.	Spatial Orientation		
		91.6	
14.	Satisfaction with Facility		

NOTE

Scores are percentages based on 12 residents, or approximately a 19 per cent sample of the census.

FACILITY PROFILE REPORT I: QUALITY SCORES

FACILITY ID: 19

DATE OF SURVEY 11/8/73 SURVEYOR IDs: 1 AND 4 LOCATION: Suburban OWNERSHIP: Proprietary BED SIZE/SKILLED: 20 ; ICF: 180; SHELTERED:

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.704					
2. View from Windows	.663					
9. Orderliness/Personal & Private Spaces	.488	1. Enriched Personalized Environment	.566			
5. Building Complexity	.412					
29. Staff Tolerance/Somatic	.548					
30. Staff Tolerance/Behavior	.642					
31. Staff Recognition	.534	2. Staff-Resident Relationships	.551	1. Psychosocial Environment	.569	
32. Residents' Openness with Staff	.479					
34. Group Spirit	.585					
25. Activity Level	.675					
26. Structured Activities	.529					
27. Informal Activities	.483	3. Involvement in Activities	.592			
28. Resident Interaction	.641					
1. Illumination	.613					
3. Condition of Plant	.524					
6. Unpleasant Odors	.675					
7. Cleanliness	.652	4. Physical Plant	.630			
8. Maintenance Practices	.638					
24. General Attractiveness	.644					
11. Food Service/Cleanliness	.730			2. Physical Plant & Personal Services	.638	.615
12. Food Service/Attractiveness	.588					
14. Residents' Grooming & Personal Care	.637	5. Personal Services	.647			
15. Nursing Service Staffing Levels	.638					
10. Food Service Personnel	.731					
19. Pharmacy Facilities	.440					
35. Inservice/Use of Professional Resources	.652	6. Administrative & Support	.617			
36. Inservice/For all Staff	.631					
39. Administrative Resources	.658					
40. Patient Records	.480					
17. Restorative Nursing Practice	.726					
22. Documentation of Restorative Care	.671					
23. Use of Programmatic Resources	.650	7. Rehabilitative & Restorative Car	.674	3. Professional Services	.639	
33. Encouragement of Patient Activity	.710					
38. Community Resources	.603					
13. Medical & Professional Support Staffing	.532					
16. Nursing Supervision	.459					
18. Nursing Policies	.674					
20. Medications/Practices	.680	8. Health Care Services	.626			
21. Medications/Safety	.687					
37. Professionalism of Staff	.661					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 19

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/11/73
09 - 12	11/8/73

RESIDENT NEED CRITERION	SATISFACTION SCORES HIGH NEED	LOW NEED
8. Physical Competence/Hearing	100.0%	
9. Physical Competence/Vision	91.6	
24. Physical Competence/Mobility	100.0	
25. Physical Competence/Eating	100.0	
2. Self Care/Grooming	100.0	
3. Change in Physical Status	100.0	
20. Geriatric Rating Scale (GRS)	100.0	
26. Self Care/General	100.0	
5. Special Nursing Care/Decubiti	91.6	
6. Special Nursing Care/Catheters	91.6	
7. Special Nursing Care/Bowel & Bladder	100.0	
27. General Nursing Care	100.0	
4. Change in Mental Status	100.0	100.0%
12. Night-time Behavior	100.0	100.0
13. Anti-social Behavior	83.3	91.6
15. Need for Psychiatric Care	100.0	100.0
1. Communication Skills	100.0	100.0
10. Memory Span	100.0	100.0
11. Social Interaction	100.0	100.0
16. Situational Memory	100.0	100.0
19. Social Judgment	100.0	100.0
17. Verbal Competence	100.0	100.0
21. Object Identification	100.0	100.0
22. Digit Span/Forward	100.0	100.0
23. Digit Span/Backward	100.0	100.0
28. Verbal Intelligence Estimate	100.0	100.0
18. Spatial Orientation	100.0	
14. Satisfaction with Facility		

NOTE

Scores are percentages based on 12 residents, or approximately a 06 per cent sample of the census.

FACILITY PROFILE REPORT I: QUALITY SCORES

FACILITY ID: 20

DATE OF SURVEY: 11/9/73 SURVEYOR IDs: 1 AND 4 LOCATION: Suburban OWNERSHIP: Proprietary BED SIZE/SKILLED: 80 ; ICF: 10 ; SHELTERED:

QUALITY CRITERION	SCORE	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	QUALITY INDEX
4. Personalization of Environment	.494					
2. View from Windows	.444					
9. Orderliness/Personal & Private Spaces	.482	1. Enriched Personalized Environment	.495			
5. Building Complexity	.563					
29. Staff Tolerance/Somatic	.572					
30. Staff Tolerance/Behavior	.642					
31. Staff Recognition	.038	2. Staff-Resident Relationships	.487	1. Psychosocial Environment	.487	
32. Residents' Openness with Staff	.655					
34. Group Spirit	.397					
25. Activity Level	.456					
26. Structured Activities	.461					
27. Informal Activities	.465	3. Involvement in Activities	.481			
28. Resident Interaction	.550					
1. Illumination	.394					
3. Condition of Plant	.381					
6. Unpleasant Odors	.354					
7. Cleanliness	.419	4. Physical Plant	.393			
8. Maintenance Practices	.335					
24. General Attractiveness	.481					
11. Food Service/Cleanliness	.351					
12. Food Service/Attractiveness	.457			2. Physical Plant & Personal Services	.411	.442
14. Residents' Grooming & Personal Care	.510	5. Personal Services	.430			
15. Nursing Service Staffing Levels						
10. Food Service Personnel	.376					
19. Pharmacy Facilities	.432					
35. Inservice/Use of Professional Resources	.367	6. Administrative & Support	.407			
36. Inservice/For all Staff	.435					
39. Administrative Resources	.498					
40. Patient Records	.317					
17. Restorative Nursing Practice	.435					
22. Documentation of Restorative Care	.316					
23. Use of Programmatic Resources	.461	7. Rehabilitative & Restorative Car	.398	3. Professional Services	.429	
33. Encouragement of Patient Activity	.387					
38. Community Resources	.362					
13. Medical & Professional Support Staffing						
16. Nursing Supervision	.481					
18. Nursing Policies	.471					
20. Medications/Practices	.585	8. Health Care Services	.483			
21. Medications/Safety	.646					
37. Professionalism of Staff	.265					

FACILITY PROFILE REPORT II: NEED SATISFACTION SCORES

FACILITY ID: 20

PATIENT REVIEWS INCLUDED

RESIDENT ID	DATE
01 - 08	10/12/73
09 - 12	11/9/73

RESIDENT NEED CRITERION		SATISFACTION SCORES: HIGH NEED	LOW NEED
8.	Physical Competence/Hearing	83.3%	
9.	Physical Competence/Vision	66.6	
24.	Physical Competence/Mobility	75.0	
25.	Physical Competence/Eating	75.0	
2.	Self Care/Grooming	83.3	
3.	Change in Physical Status	25.0	
20.	Geriatric Rating Scale (GRS)	75.0	
26.	Self Care/General	75.0	
5.	Special Nursing Care/Decubiti	0.0	
6.	Special Nursing Care/Catheters	58.3	
7.	Special Nursing Care/Bowel & Bladder	0.0	
27.	General Nursing Care	100.0	100.0%
4.	Change in Mental Status	50.0	100.0
12.	Night-time Behavior	50.0	100.0
13.	Anti-social Behavior	66.6	100.0
15.	Need for Psychiatric Care	75.0	100.0
1.	Communication Skills	100.0	100.0
10.	Memory Span	75.0	66.6
11.	Social Interaction	58.3	91.6
16.	Situational Memory	58.3	100.0
19.	Social Judgment	75.0	100.0
17.	Verbal Competence	66.6	100.0
21.	Object Identification	66.6	100.0
22.	Digit Span/Forward	100.0	100.0
23.	Digit Span/Backward	100.0	100.0
28.	Verbal Intelligence Estimate	75.0	100.0
18.	Spatial Orientation	75.0	
14.	Satisfaction with Facility		

NOTE

Scores are percentages based on 12 residents, or approximately a 22 per cent sample of the census.

APPENDIX G

FIVE SELECTED PILOT TEST RESIDENT PROFILE REPORTS

RESIDENT PROFILE REPORT

REVIEW DATE: 10/5/73 SURVEYOR ID: 2

FACILITY ID: 03 RESIDENT ID: 10

SEX: Female RACE: White DATE OF ADMISSION: 05/67

NEED CRITERION	SCORE	MATCHING SCORES HIGH NEED	MATCHING SCORES LOW NEED	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	NEED INDEX
8. Physical Competence/Hearing	0.43	1.36						
9. Physical Competence/Vision	0.35	1.61						
24. Physical Competence/Mobility	0.32	1.60						
25. Physical Competence/Eating	0.41	1.31		1. Basic Physical Competence	0.37			
2. Self Care/Grooming	0.40	1.33						
3. Change in Physical Status	0.54	1.12						
20. Geriatric Rating Scale (GRS)	0.38							
26. Self Care/General	0.81	1.73		2. Self-Care Competence	0.38	1. Physical Competence	0.39	
5. Special Nursing Care/Decubiti	0.45	1.29						
6. Special Nursing Care/Catheters	0.45	1.22						
7. Special Nursing Care/Bowel & Bladder	0.40	1.40						
27. General Nursing Care	0.47	1.20		3. Special Nursing Needs	0.44			
4. Change in Mental Status	0.54	1.04	1.26					
12. Night-time Behavior	0.44	1.28	1.04					
13. Anti-social Behavior	0.45	1.25	1.06					
15. Need for Psychiatric Care	0.56	1.00	1.33	4. Emotional Competence	0.48			
1. Communication Skills	0.39	1.45	0.95					
10. Memory Span	0.22	2.49	0.75					
11. Social Interaction	0.37	1.52	0.92					
16. Situational Memory	0.34	1.63	0.89					
19. Social Judgment	0.38	1.48	0.94	5. Social Competence	0.36	2. Psychosocial Competence	0.42	0.44
17. Verbal Competence	0.38	1.46	0.94					
21. Object Identification	0.38	1.49	0.93					
22. Digit Span/Forward	0.44	1.27	1.04					
23. Digit Span/Backward	0.45	1.25	1.05					
28. Verbal Intelligence Estimate	0.55	1.01	1.30	6. Verbal Competence	0.42			
18. Spatial Orientation	0.41	1.36	0.99	7. Spatial Competence	0.41			
14. Satisfaction with Facility	0.49	1.03		8. Perceptions of Facility	0.49	3. Resident's Perceptions	0.49	

*Indicates that matching score falls below the distribution-dependent "cut-off point".

Matching scores based on Facility survey conducted

IDPH POINT COUNTS

1. Eating	0
2. Mobility	-
3. Behavior/Mental Condition	0
4. Physical Rehabilitation	4
5. Catheterization	0
6. Incontinence	0
7. Enemas, Colostomy Irrigations	4

TOTAL POINTS = 14

8. Diet	3
9. Medications	3
10. Injections	0
11. I.V. Fluids	0
12. Suctioning	0
13. Oxygen	0
14. Dressings and Appliances	0

RESIDENT PROFILE REPORT

FACILITY ID: 11 RESIDENT ID: 08

REVIEW DATE: 10/17/73 SURVEYOR ID: 1

SEX: Female RACE: White DATE OF ADMISSION: 07/72

NEED CRITERION	SCORE	MATCHING SCORES HIGH NEED	MATCHING SCORES LOW NEED	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	NEED INDEX
8. Physical Competence/Hearing	0.91	0.59*						
9. Physical Competence/Vision	0.51	0.99						
24. Physical Competence/Mobility	0.59	1.04		1. Basic Physical Competence	0.55			
25. Physical Competence/Eating	0.41	1.28						
2. Self Care/Grooming	0.43	1.40						
3. Change in Physical Status	0.30	1.83						
20. Geriatric Rating Scale (GRS)	0.47			2. Self-Care Competence	0.39	1. Physical Competence	0.46	
26. Self Care/General	0.31	1.95						
5. Special Nursing Care/Decubiti	0.45	1.13						
6. Special Nursing Care/Catheters	0.45	1.15						
7. Special Nursing Care/Bowel & Bladder	0.40	1.41		3. Special Nursing Needs	0.43			
27. General Nursing Care	0.44	0.94						
4. Change in Mental Status	0.26	2.06	0.70					
12. Night-time Behavior	0.44	1.22	0.92					
13. Anti-social Behavior	0.50	1.07	1.03	4. Emotional Competence	0.42			
15. Need for Psychiatric Care	0.41	1.29	0.88					
1. Communication Skills	0.39	1.37	0.85					
10. Memory Span	0.46	1.16	0.95					
11. Social Interaction	0.36	1.48	0.81	5. Social Competence	0.37	2. Psychosocial Competence	0.42	0.42
16. Situational Memory	0.34	1.55	0.79					
19. Social Judgment	0.39	1.36	0.85					
17. Verbal Competence	0.38	1.39	0.84					
21. Object Identification	0.42	1.27	0.89					
22. Digit Span/Forward	0.59	0.90	1.26	6. Verbal Competence	0.46			
23. Digit Span/Backward	0.45	1.19	0.94					
28. Verbal Intelligence Estimate	0.55	0.96	1.16					
18. Spatial Orientation	0.41	1.29	0.88	7. Spatial Competence	0.41			
14. Satisfaction with Facility	0.38	1.23		8. Perceptions of Facility	0.38	3. Resident's Perceptions	0.38	

*Indicates that matching score falls below the distribution-dependent "cut-off point".

Matching scores based on Facility survey conducted

IDFH POINT COUNTS

1. Eating	0
2. Mobility	0
3. Behavior/Mental Condition	0
4. Physical Rehabilitation	10
5. Catheterization	0
6. Incontinence	0
7. Enemas, Colostomy Irrigations	0

TOTAL POINTS = 16

8. Diet	3
9. Medications	3
10. Injections	0
11. I.V. Fluids	0
12. Suctioning	0
13. Oxygen	0
14. Dressings and Appliances	0

RESIDENT PROFILE REPORT

REVIEW DATE: 10/19/73 SURVEYOR ID: 2

FACILITY ID: 12 RESIDENT ID: 02

SEX: Female RACE: White DATE OF ADMISSION: 02/63

NEED CRITERION	SCORE	MATCHING SCORES HIGH NEED	MATCHING SCORES LOW NEED	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	NEED INDEX
8. Physical Competence/Hearing	0.43	1.49						
9. Physical Competence/Vision	0.82	0.71						
24. Physical Competence/Mobility	0.72	0.80						
25. Physical Competence/Eating	0.41	1.43		1. Basic Physical Competence	0.59			
2. Self Care/Grooming	0.40	1.56						
3. Change in Physical Status	0.54	1.09						
20. Geriatric Rating Scale (GRS)	0.50							
26. Self Care/General	0.72	0.87		2. Self-Care Competence	0.54	1. Physical Competence	0.52	
5. Special Nursing Care/Decubiti	0.45	1.45						
6. Special Nursing Care/Catheters	0.45	1.29						
7. Special Nursing Care/Bowel & Bladder	0.48							
27. General Nursing Care	0.39	1.39		3. Special Nursing Needs	0.44			
4. Change in Mental Status	0.54	1.10	1.31					
12. Night-time Behavior	0.44	1.35	1.08					
13. Anti-social Behavior	0.45	1.32	1.10					
15. Need for Psychiatric Care	0.41	1.43	1.04	4. Emotional Competence	0.46			
1. Communication Skills	0.59	1.00	1.48					
10. Memory Span	-	-	-					
11. Social Interaction	0.66	0.89	1.81					
16. Situational Memory	-	-	-	5. Social Competence	0.52	2. Psychosocial Competence	0.45	
19. Social Judgment	0.38	1.50	0.98					
17. Verbal Competence	-	-	-					
21. Object Identification	-	-	-					
22. Digit Span/Forward	-	-	-					
23. Digit Span/Backward	-	-	-	6. Verbal Competence	0.19			
28. Verbal Intelligence Estimate	0.19	3.09	0.75					
18. Spatial Orientation	0.61	0.97	1.54	7. Spatial Competence	0.61			
14. Satisfaction with Facility	0.64	0.94		8. Perceptions of Facility	0.64	3. Resident's Perceptions	0.64	0.54

*Indicates that matching score falls below the distribution-dependent "cut-off point".

Matching scores based on Facility survey conducted

IDPH POINT COUNTS

1. Eating	0
2. Mobility	3
3. Behavior/Mental Condition	0
4. Physical Rehabilitation	4
5. Catheterization	0
6. Incontinence	1
7. Enemas, Colostomy Irrigations	0

TOTAL POINTS = 8

8. Diet	-
9. Medications	0
10. Injections	0
11. I.V. Fluids	0
12. Suctioning	0
13. Oxygen	0
14. Dressings and Appliances	0

RESIDENT PROFILE REPORT

FACILITY ID: 20 RESIDENT ID: 1

REVIEW DATE: 10/12/73 SURVEYOR ID: 3 SEX: Female RACE: White DATE OF ADMISSION: 07/68

NEED CRITERION	SCORE	MATCHING SCORES HIGH NEED	MATCHING SCORES LOW NEED	SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	NEED INDEX
8. Physical Competence/Hearing	0.43	1.16						
9. Physical Competence/Vision	0.35	1.36						
24. Physical Competence/Mobility	0.32	1.50		1. Basic Physical Competence	0.37			
25. Physical Competence/Eating	0.41	0.93						
2. Self Care/Grooming	0.48	0.90						
3. Change in Physical Status	0.54	0.55*						
20. Geriatric Rating Scale (GRS)	0.55			2. Self-Care Competence	0.57	1. Physical Competence	0.46	
26. Self Care/General	0.63	0.69						
5. Special Nursing Care/Decubiti	0.45	0.80						
6. Special Nursing Care/Catheters	0.45	0.64*						
7. Special Nursing Care/Bowel & Bladder	0.40	0.81		3. Special Nursing Needs	0.45			
27. General Nursing Care	0.51	0.61*						
4. Change in Mental Status	0.54	0.71	0.91					
12. Night-time Behavior	0.55	0.69*	0.93					
13. Anti-social Behavior	0.86	0.44*	3.04	4. Emotional Competence	0.65			
15. Need for Psychiatric Care	0.56	0.68*	0.96					
1. Communication Skills	0.59	0.64*	1.03					
10. Memory Span	0.69	0.55	1.34					
11. Social Interaction	0.53	0.72	0.89	5. Social Competence	0.63	2. Psychosocial Competence	0.65	0.51
16. Situational Memory	0.68	0.56*	1.30					
19. Social Judgment	0.66	0.57*	1.25					
17. Verbal Competence	0.74	0.51*	1.60					
21. Object Identification	0.72	0.52*	1.51					
22. Digit Span/Forward	0.81	0.47*	2.24	6. Verbal Competence	0.75			
23. Digit Span/Backward	0.74	0.51	1.64					
28. Verbal Intelligence Estimate	0.80	0.48	2.06					
18. Spatial Orientation	0.58	0.65*	1.01	7. Spatial Competence	0.58			
14. Satisfaction with Facility	0.42	0.77		8. Perceptions of Facility	0.42	3. Resident's Perceptions	0.42	

*Indicates that matching score falls below the distribution-dependent "cut-off point".

Matching scores based on Facility survey conducted

IDPH POINT COUNTS

1.	Eating	0
2.	Mobility	-
3.	Behavior/Mental Condition	0
4.	Physical Rehabilitation	0
5.	Catheterization	0
6.	Incontinence	0
7.	Enemas, Colostomy Irrigations	0
8.	Diet	3
9.	Medications	3
10.	Injections	4
11.	I.V. Fluids	0
12.	Suctioning	0
13.	Oxygen	0
14.	Dressings and Appliances	0

TOTAL POINTS = 10

RESIDENT PROFILE REPORT

REVIEW DATE: 11/9/73 SURVEYOR ID: 4

FACILITY ID: 20 RESIDENT ID: 10

SEX: Female RACE: White DATE OF ADMISSION: 03/72

NEED CRITERION	SCORE	MATCHING SCORES HIGH NEED	MATCHING SCORES LOW NEED
8. Physical Competence/Hearing	0.66	0.75*	
9. Physical Competence/Vision	0.66	0.71*	
24. Physical Competence/Mobility	0.45	1.06	
25. Physical Competence/Eating	0.41	0.93	
2. Self Care/Grooming	0.42	1.04	
3. Change in Physical Status	0.77	0.38*	
20. Geriatric Rating Scale (GRS)	0.57		
26. Self Care/General	0.51	0.85	
5. Special Nursing Care/Decubiti	0.45	0.80	
6. Special Nursing Care/Catheters	0.45	0.80	
7. Special Nursing Care/Bowel & Bladder	0.40	0.64	
27. General Nursing Care	0.54	0.57	
4. Change in Mental Status	0.54	0.71	0.91
12. Night-time Behavior	0.44	0.87	0.75
13. Anti-social Behavior	0.45	0.85	0.76
15. Need for Psychiatric Care	0.51	0.75	0.85
1. Communication Skills	0.47	0.31	0.79
10. Memory Span	0.64	0.59	1.17
11. Social Interaction	0.65	0.58	1.22
16. Situational Memory	0.68	0.56	1.30
19. Social Judgment	0.36	1.05	0.66
17. Verbal Competence	0.39	0.98	0.69
21. Object Identification	0.39	0.97	0.69
22. Digit Span/Forward	0.51	0.74	0.87
23. Digit Span/Backward	0.55	0.69	0.93
28. Verbal Intelligence Estimate	0.53	0.72	0.89
18. Spatial Orientation	0.44	0.86	0.75
14. Satisfaction with Facility	0.46	0.71	

*Indicates that matching score falls below the distribution-dependent "cut-off point".

Matching scores based on Facility survey conducted

SUBOBJECTIVE	SCORE	OBJECTIVE	SCORE	NEED INDEX
1. Basic Physical Competence	0.53			
2. Self-Care Competence	0.56	1. Physical Competence	0.52	
3. Special Nursing Needs	0.46			
4. Emotional Competence	0.47			
5. Social Competence	0.54	2. Psychosocial Competence	0.48	
6. Verbal Competence	0.46			
7. Spatial Competence	0.44			
8. Perceptions of Facility	0.46	3. Resident's Perceptions	0.46	0.48

IDPH POINT COUNTS

1. Eating	0
2. Mobility	-
3. Behavior/Mental Condition	3
4. Physical Rehabilitation	-
5. Catheterization	0
6. Incontinence	0
7. Enemas, Colostomy Irrigations	0

TOTAL POINTS = 14

8. Diet	3
9. Medications	-
10. Injections	0
11. I.V. Fluids	0
12. Suctioning	0
13. Oxygen	8
14. Dressings and Appliances	-

APPENDIX H

REFERENCES TO PREVIOUS PROJECT REPORTS

Note: In order to avoid massive duplication of technical material previously submitted to the National Center for Health Services Research and Development (NCHSRD) under this contract, reference is occassionally made in this report to various other project documents. These are listed below along with the form of the citation.

Citation	Explanation
Initial data collection instruments	Survey instruments used to collect the initial data base, in the slightly revised form submitted to NCHSRD February 16, 1973
Report of May 21	Scaled Measures of Facility and Patient Characteristics, submitted May 21, 1973
Report of July 19	Quality Evaluation Survey Instruments for Long-Term Care and OMB Clearance Request, submitted July 19, 1973
Interim Report, I	Interim Report, Volume I: Narrative and Analysis, submitted September 12, 1973
Interim Report, II	Interim Report, Volume II: Quality Construct, submitted August 20, 1973

REFERENCES

American Association of Homes for the Aging.
1966 The Social Components of Care. New York: The National Council on the Aging.

American Hospital Association
1971 Winds of Change: Report of a conference on activity programs for long-term care institutions.

Adams, David L.
1969 "Analysis of a life satisfaction index." Journal of Gerontology, 24:470-474.

Archer, Harvey E., and Abram L. Van Horn
1974 "Survey instrument to study institutional care services for convalescent and long-term care patients." Health Services Reports 89, (January-February):83-89.

Axelrod, Seymour and Carl Eisdorfer.
1961 "Attitudes toward old people; an empirical analysis of the stimulus-group validity of the Tuckman-Lange questionnaire." Journal of Gerontology 16, (January):75-80.

Baker, Frank, and Herbert C. Schulberg.
1967 "The development of a community mental health ideology scale." Community Mental Health Journal 3, (Fall):216-225.

Benton, A. L.
1959 "Benton right-left discrimination battery." New York: Hoeber-Harper.

Berg, Robert L., Francis E. Browning, John G. Hill, and Walter Wenkert.
1970 "Assessing the health care needs of the aged." Health Services Research V, I (Spring):36-59.

Berg, Robert L.
1973 Health Status indexes. Chicago Hospital Research and Educational Institute.

Bidwell, Charles M. and Doris J. Froebe
1971 "Development of an instrument for evaluating hospital nursing performance." Journal of Nursing Administration, (September-October):10-13.

Blalock, Hubert M.
1971 "Aggregation and measurement error." Social Forces 50, (December):151-165.

Brown, Martha M.
1968 Nurses, Patients, and Social Systems: The effects of skilled nursing intervention upon institutionalized older patients. XLVI, Columbia: University of Missouri Press.

Bush, J. W., Martin Chen and D. L. Patrick
1973 "Health status index in cost-effectiveness: Analysis of PKU Program" in R. L. Berg, (ed.), Health Status Indexes. Chicago: Hospital Research and Educational Trust.

Campbell, Margaret E.
1971 "Study of the attitudes of nursing personnel toward the geriatric patient." Nursing Research 20, (March-April):147-151.

Campbell, Donald T. and Donald W. Fiske.
1959 "Convergent and discriminant validation by the multitrait-multimethod matrix." Psychological Bulletin 56, 2 (March):81-105.

Canter, Gerald J., Rolando de la Torre and Manuel Mier.
1961 A method for evaluating disability in patients with Parkinson's Disease." Journal of Nervous and Mental Disease, 122:143-147.

Carp, Frances.
1967 "The Impact of environment of old people." Gerontologist. Pp. 106-108.

Carter, Joan Haselman, Mildred Hilliard, Mary Reardon Castles, Leona D. Stoll, and Anne Cowan.
1972 Standards of Nursing Care: A Guide for Evaluation. New York: Springer Publishing Company, Inc.

Chicago Tribune.
1971 "Abuses in nursing homes: Task force report".

Coe, Rodney M.
1965 "Self conception and institutionalization" in Arnold M. Rose and Warren A. Peterson, (eds.), Older People and Their Social World. Philadelphia: F. A. Davies Company.

Cohen, Jacob, and Elmer L. Struening.
1962 "Opinions about mental illness in the personnel of two large mental hospitals." Journal of Abnormal and Social Psychology, 64:349-360.

Commission for Administrative Services in Hospitals
1965 "A quality control plan for nursing service." Ann Arbor: University of Michigan

Coombs, Clyde H.
1965 "Theory and methods of social measurements." Pp. 471-535 in Leon Festinger and Daniel Katz (eds.), Research Methods in the Behavioral Sciences. New York: Holt, Rinehart and Winston.

Cronback, Lee J. and Paul E. Meehl.
1955 "Construct validity in psychological tests." Psychological Bulletin 4, (July):281-302.

Cummings, John and Elaine Cummings.
1963 Ego and Milieu. New York: Atherton.

Davis, Lucille, Janet Feldman, and Robert J. Richard.
1973 "Monitoring quality of life and care in long-term care facilities." Paper presented to the Gerontological Society, Miami Beach Florida.

Decker, Barry M.D., and Paul Bonner
1973 PSRO: Organization for Regional Peer Review. Cambridge: Ballinger Publishing Company.

DeLong, Alton J.
1967 "An outline of the environmental language of the older person," paper presented at the Sixth Annual Meeting and Conference of the American Association of Homes for the Aging, (October).

DeLong, Alton J.
1969 "An outline of the environmental language of the older person," paper presented to the American Association of Homes for the Aging.

Denzen, Paul, et al.
1972 "Development of a patient classification." (Mimeographed). Cambridge, Massachusetts: Harvard Center for Community Health and Medical Care.

Donabedian, A.
1966 "Evaluating the quality of medical care." The Millbank Memorial Fund Quarterly, (July):44:166-203, part 2.

1969 A Guide to Medical Care Administration, Volume II: Medical Care Appraisal-Quality and Utilization. American Public Health Association. New York: In press.

Dressler, Forrest G.
1971 "Patient care assessment in extended health care facilities." Connecticut Health Services Research Series, No. 1.

Dunn, Lloyd M.
1971 Expanded Manual for the Peabody Picture Vocabulary Test. Circle Pines, Minnesota: American Guidance Service.

Dyer, Elaine D.
1967 Nurse Performance Description: Criteria, Predictors and Correlates. Salt Lake City: University of Utah Press.

Eisdorfer, Carl.
1966 "Attitudes toward old people; a reanalysis of the item - validity of the stereotype scale." Journal of Gerontology 21, (July):455-457.

Endicott, Jean, and Robert L. Spitzer
1973 "What! Another rating scale? The psychiatric evaluation form." Journal of Nervous and Mental Disease, 154:88-104.

Fanshel, S., and J. W. Bush
1970 "A health status index and its application to health services outcomes." Operations Research 18, (November-December):1021.

Farina, Amerigo, David Arenberg, and Samuel Guskin
1957 "A scale for measuring minimal social behavior." Journal of Consulting Psychology, 21:265-268.

Farnsworth, Ellen L., Gregg W. Dawney and Florence L. McGillan
1972 "Special report: Inspectors." Modern Nursing Home 29, (November):40-54.

Feldman, Janet.
1973 "Suggestions for the environment to be known as Johnston R. Bowman Health Park." Unpublished paper, (May).

Fowkes, Wm. C., and V. Hunn.
1973 Clinical Assessment for the Nurse Practitioner. St. Louis: C. V. Mosky.

Gilbert, Doris C., and Daniel J. Levinson
1957 " 'Custodialism' and 'Humanism' in mental hospital structure and in staff ideology" in M. Greenblatt, D. Levinson and R. Williams (eds.), The Patient and the Mental Hospital. New York, Free Press:20-35.

Goffman, Irving.
1965 Asylums. New York: Anchor.

Goldman, E. B. and Woog, P.
1972-1973 "Mental health in nursing homes training project," paper presented at the Gerontological Society Convention, Miami Beach, Florida, (November).

Gottesman, Leonard E.
1974 "Nursing home performance as related to resident traits, ownership, size, and source of payment." American Journal of Public Health 64 No. 3, (March):269-276.

Greenwald, S. R., and M. W. Linn.
1971 "Intercorrelation of data on nursing homes." The Gerontologist, 11:337-340.

Gurin, G. J., Veroff, and S. Feld
1960 Americans View Their Mental Health. New York: Basic Books.

Hall, E. T.
1963 "Proxemics - a study of man's special relationships" in D. Goldston, (ed.), Man's Image in Medicine and Anthropology. New York: International Universities Press. Pp. 422-425.

1968 "Proxemics." Current Anthropology 9 No. 2-3 (April-June):83-108

SCALE, A Quality Control Plan for Nursing Service.
1965 Hospital Systems Improvement Program, University of Michigan, Ann Arbor, Michigan.

Illinois Department of Public Health
1972 Minimum Standards, Rules and Regulations for Classification and Licensure of Long-Term Care Facilities, Rev. Ed. Springfield, Illinois: IDPH.

Joint Commission on Accreditation of Hospitals
1968 Standards for Accreditation of Extended Care Facilities, Nursing Care Facilities, and Resident Care Facilities. (Multilith).

Joint Commission on Accreditation of Hospitals
1971 Accreditation Manual for Hospitals. Chicago: JCAH.

Jacobs, H. Lee
1966 "Marshalling community resources" in H. Lee Jacobs and Woodrow W. Morris (eds.), Nursing and Retirement Home Administration. Ames, Iowa: Iowa State University Press.

Jacoby, Susan
1974 "Waiting for the end: On nursing homes." New York Times Magazine (March 31):13ff.

Jelinek, Richard C., R. K. Dieter Haussmann, Sue T. Hegyvary, and John F. Newman.
1974 A Methodology to Monitor Quality of Nursing Care. Washington: Department of Health, Education and Welfare, Health Resources Administration, Director of Nursing. DHEW Publication No. HRA 74-25.

Jones, Ellen W.
1973 Patient Classification for Long-Term Care. Department of Health, Education and Welfare. DHEW Publication No. HRA 74-00632, (December).

Katz, Sidney, Thomas D. Downs, Helen R. Cash, and Robert O. Grotz.
1970 "Progress in development of the index of ADL." The Gerontologist, (Spring):20-30.

Kahana, Eva, and Rodney M. Coe.
1969 "Self and staff conceptions of institutionalized aged." _____

Kahana, Boaz, and Eva Kahana.
1970a "Changes in mental status of elderly patients in age-integrated and age-segregated hospital milieus." Journal of Abnormal Psychology Vol. 75, No. 2. Pp. 177-181.

Kahana, Eva and Boaz Kahana.
1970b "Therapeutic potential of age integration." Archives of General Psychiatry Vol. 23. Pp. 20-29.

Kent,, Ronald, Robert Kastenbaum and Sylvia Sherwood.
1972 Research, Planning and Action for the Elderly. New York: Bahavioral Publications.

Knee, Ruth I.
1971 Winds of Change: Report of a conference on Activity programs for long-term care institutions. Chicago: American Hospital Association.

Kogin, N.
1961 "Attitudes toward old people: Development of a scale and examination of correlates." Journal of Abnormal and Social Psychology, 62:4-54.

Kosberg, Jordan.
1972 "The relationship of organizational characteristics to treatment resources in nursing homes." Unpublished dissertation, School of Social Service Administration, University of Chicago.

Kosberg, Jordan I., and Sheldon S. Tobin
1972 "Variability among nursing homes." The Gerontologist, 12:1-

Kramer, Charles and Jeanette Kramer.
1966 & 1967 "Establishing a therapeutic community in the nursing home." Professional Nursing Home, (September, October, November 1966 and January, February, April 1967).

Lance, G. N., and W. T. Williams.
1966 "A general theory of classificatory sorting strategies I. Hierarchical Systems, Computer Journal, 9:373-80.

1967 "A general theory of classificatory sorting strategies II. Clustering systems." Computer Journal, 10:271-277.

Langner, Thomas S.
1962 "A twenty-two item screening score of psychiatric symptoms indicating impairment." Journal of Health and Human Behavior, 3:269-276.

Lawton, M. Powell.
1970 "Assessment of integration and environments for older people." The Gerontologist, 10:38-46.

1972a "Assessing the competence of older people" in D. Kent, R. Rostenbaum, and S. Sherwood, (eds.), Research, Planning and Action for the Elderly. New York: Behavioral Publications. Pp. 122-143.

1972b "The dimensions of morale" in D. Kent, R. Kostenbaum and S. Sherwood, (eds.), Research, Planning and Action for the Elderly. New York: Behavioral Publications. Pp. 144-165.

1973 "The functional assessment of elderly people." Journal of the American Geriatrics Society, Vol. XIX No. 6 (June):465-481.

1974 "Social ecology and the health of older people." American Journal of Public Health 64, No. 3. (March):257-260.

Lawton, M. Powell, B. Liebowitz, and H. Charon.
1970 "Physical structure and the behavior of senile patients following ward remodeling." Aging and Human Development Vol. 1, p. 231-239.

Leeds, Morton, and Herbert Shore.
1964 Geriatric Institutional Management. New York: G. P. Putnam's Sons.

Levey, Samuel, Hirsch S. Ruchlin, Bernard A. Stotsky, David R. Kinlock and William Oppenheim.
1973 "An appraisal of nursing home care." Journal of Gerontology, 2:222-228.

Levine, Myra E.
1968 "Proxemics and patient care," paper presented at the annual meeting of the National Conference of Jewish Community Services.

Lieberman, Morton, Sheldon S. Tobin and Darryl Slover.
1969 "Effects of relocation on long-term geriatric patients." Final report to Illinois Department of Mental Health, Project No. 17-328. Chicago: School of Social Service Administration, University of Chicago.

Linn, Margaret W. M.S.S.W.
1973 "Predicting quality of patient care in nursing homes," paper presented at the 26th Annual Meeting of the Gerontological Society, Miami Beach, Florida (November 6).

Linn, Margaret W., William B. Schulthorpe, Margaret Evje, Phillip H. Slater, and and Spencer P. Goodman.
1969 "A social dysfunction rating scale." Journal of Psychiatric Research 6:299-306.

McGuire, Rita L.
1968 "Bedside nursing audit." American Journal of Nursing (October).

Mahoney, Florence and Dorothea Barthel.
1965 "Functional evaluation: The Bartel index." Maryland State Medical Journal (February):61-74.

Mayers, M.
1972 A Systematic Approach to the Nursing Care Plan. New York: Appleton-Century Crafts.

Meer, Bernard and Janet Boher.
1966 "The stockton geriatric rating scale." Journal of Gerontology 21:392-403.

Miller, Michael.
1966 "Synthesis of a therapeutic community for the aged III." Geriatrics Vol. 21, pp. 151-163 (August).

Moos, Rudolf and Peter Houts.
1967 "Assessment of the social atmospheres of psychiatric wards." Journal of Abnormal Psychology 73:272-283.

1971a Revision of the Ward Atmosphere Scales (WAS): Technical Report. Palo Alto: Social Ecology Laboratory.

1971b The Community-Oriented Programs Environment Scales (COPES): Technical Report. Palo Alto: Social Ecology Laboratory.

1972 "Assessment of the psychosocial environments of community oriented psychiatric treatment programs." Journal of Abnormal Psychology 79:9-18.

1974 Evaluating Treatment Environments: A Social Ecological Approach. New York: Wiley.

_____, and Peter S. Houts.
1968 "Assessment of the social atmospheres of psychiatric wards." Journal of Abnormal Psychology 73:595-604.

Morris, John N., Sylvia Sherwood and Joyce Glassmann.
1972 "A retesting and modification of the Philadelphia Geriatric Center Morale Scale," paper presented to the Gerontological Society, 25th Annual Meeting.

National League of Nursing.
1966 "Quest for quality: A self evaluation guide to patient care." The Committee on Quality of Patient Care, Department of Hospital Nursing (mimeographed).

Neugarten, Bernice L., Robert J. Havinghurst, and Sheldon S. Tobin.
1961 "The measurement of life satisfaction." Journal of Gerontology, 16: 134-143.

Overall, John E., and Donald R. Gorham
1962 "The brief psychiatric rating scale." Psychological Reports, 10:799-812.

Pastalan, Leon A., and Daniel H. Carson (eds.).
1970 The Spatial Behavior of Older People. Ann Arbor: Institute of Gerontology.

Patrick, D. L., J. W. Bush, and M. M. Chen.
1973a "Toward an operational definition of health." Journal of Health and Social Behavior 14, (March):6ff.

1973b "Methods for measuring levels of well-being for a health status index." Health Services Research, 8:228-245.

Pfeiffer, Eric.
1973 "Multidimensional quantitative assessment of three populations of elderly," paper presented to the Gerontological Society, 26th Annual Meeting.

Phaneuf, Maria.
1972 The Nursing Audit - Profile for Excellence. New York: Appleton-Century-Crofts.

Plutchik, R., H. Conte, M. Lieberman, M. Bakur, J. Grossmann and N. Lehrman.
1970 "Reliability and validity of a scale for assessing the functioning of geriatric patients." Journal of the American Geriatrics Society, 18: 491-500.

Plutchik, Robert, Hope Conte and MOrris Lieberman.
1971 "Development of a scale (GIES) for assessment of cognitive and perceptual functioning in geriatric patients." Journal of the American Geriatrics Society, 19:614-523.

Richard, Robert J.
1969 Subjective Social Indicators. Chicago: National Opinion Research Center (NTIS document No. PB-187-444).

St. John, Donald B., Darryl R. Dobin and Bruce A. Flashner
1973 "An automated system for the regulation and medical review of long-term care facilities and patients." AJPH 63 (July):619-630.

Schuell, Hildred.
1965 Minnesota Test for Differential Diagnosis of Aphasia. Minneapolis: University of Minnesota Press.

Schwartz, Carol C., Jerome K. Myers and Boris M. Astrachan
1973 "Comparing three measures of mental status: A note on the validity of estimates of psychological disorder in the community." Journal of Health and Social Behavior, 14: 265-273.

Seiler, Lauren H.
1973 "The 22-item scale used in field studies of mental illness." Journal of Health and Social Behavior, 14: 252-264.

Shaughnessy, Mary E., Geraldine M. O'Brien, Therese E. Fitzpatrick and Sara Snair Groves.
1968 An approach to determining the nursing needs of nursing home patients in order to provide a sound basis for planning appropriate effective nursing services. Boston: Boston College School of Nursing.

Sherwood, Sylvia.
1972 "The sociology of food and eating: Implications for action for the elderly," paper presented at the 25th Annual Meeting of the Gerontological Society held in Puerto Rico, (December 17-21).

Sherwood, Sylvia, Esther Barnhart, and John N. Morris.
1972 "An instrument for replicating clinical judgments concerning appropriate residential settings for elderly persons," paper presented to the 25th Annual Meeting of the Gerontological Society.

Skinner, Douglas E., and Donald E. Yett.
(no date) "The development and application of a debility index for patients in nursing homes," paper submitted at HSR Conference on Health Status Index.

Slater, Doris
1967 "The Slater nursing competencies rating scale." Detroit: Wayne State University (mimeographed).

Slover, Darrell
1968 "Manteno relocation project." Chicago: University of Chicago (unpublished dissertation research).

Sneath, P.H.A., and R. R. Sokal.
1962 "Numerical taxonomy." Nature, 193:855-60.

Somers, Robert H.
1962 "A new assymetric measure of association for ordinal variables." American Sociological Review, 27 (December):799-811.

Strauss, Anselm, and Associates.
1964 Psychiatric Ideologies and Institutions. New York: Free Press.

Struening, Elmer L., and Jacob Cohen.
1963 "Factorial invariance and other psychometric characteristics of five opinions about mental illness factors." Educational and Psychological Measurement, 23:289-298.

Tate, Barbara L.
(no date) "Test of a nursing performance evaluation instrument." New York: National League for Nursing.

Terman, L.M. and Maud A. Merrill.
1960 Stanford-Binet Intelligence Scale: Manual for the Third Revision, Form L-M. Boston: Houghton-Mifflin.

Tobin, Sheldon S.
1973a Personal Communication.

1973b "How nursing homes vary." Joint Symposium on Long-Term Care Research, Policy and Practice presented to the Gerontological Society, Miami Beach, Florida, November 9, 1973.

Torgersen, Warren S.
1958 Theory and Methods of Scaling. New York: Wiley.

Tuckerman, Jacob and Irving Lorge.
1953 "Attitudes toward old people." Journal of Social Psychology, 37:249-260.

Veterans Administration
1969 "Nursing care quality evaluation." (VA Form 10-204663) (NR).

Wandelt, Mabel A. and Joel Ager
1970 "Quality patient care scales (QUALPACS)." Detroit: Wayne State University (mimeographed).

Webb, Eugene J., Donald T. Campbell, Richard D. Schwartz and Lee Sechrest.
1966 Unobtrusive Measures: Nonreactive research in the social sciences. Chicago: Rand McNally.

Wechsler, David
1945 "Wechsler memory scale." New York: Psychological Corporation.

Weinberg, Eva.
1971 Local Surveys with Community Talent, Chicago: National Opinion Research Center.

Weiss, M. A. (ed.).
1968 Nurses, Patients and Social Systems. Columbia: University of Missouri.

Wells, F. L. and Jurgen Ruesch

1945 Wells-Ruesch Mental Examiners' Handbook, Memory Span for Objects. New York: Psychological Corporation.

1965 Mental Examiner's Handbook. New York: Psychological Corporation.

Williams, T. Franklin, John G. Hill, Matthew E. Fairbank, and Kenneth G. Knox.
1973 "Appropriate placement of the chronically ill and aged." Journal of the American Medical Association 226, No. 11 (December 10):1332-1335.

Wood, V., M. L. Wylie, and B. Sheafor.
1969 "An analysis of a short self-report measure of life satisfaction." Journal of Gerontology, 24:465ff.

Woog, Pierre, Ph.D.
1973 Evaluation Report of National Institute of Mental Health. Bureau of Educational Evaluation, Department of Educational Psychology, No. HSM 42-72-218, (July 30). Hempstead: Hofstra University.

19

CMS Library
C2-07-13
7500 Security Blvd.
Baltimore, MD 21244

CMS LIBRARY
3 8095 00002592 0